HITACHI

TT | NO.0018

CM640U
CM640ET

(V1.0)

SERVICE MANUAL

V28516

CAUTION : Before servicing this chassis , it is important that the service personnel must read the " Safety Precautions " and " Product Safety Notice " in this Service Manual.

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SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

HIGH RESOLUTION COLOR DISPLAY MONITOR

SEPTEMBER 1998

SAFETY PRECAUTIONS

NOTICE: comply with all cautions and safety related notes located on or inside the cabinet and on the chassis or picture tube.

The following precautions should be observed.

1. Do not install, remove, or handle the picture tube in any manner unless shatterproof goggles are worn.
   People not so equipped should be kept away while picture tubes are handle.
   Keep picture tube away from the body while handling.

2. When replacing a chassis in the monitor, all the protective devices must be put back in place, such as, barriers, nonmetallic knobs, adjustment and compartment shields, and isolation resistor-capacitor, ets..

3. When service is required, observe the original lead dress.
   Extra precaution should be taken to assure correct lead dress in high voltage circuitry area.

4. Always use the manufacturer's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacturers, Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.

5. Before returning a serviced monitor to the customer, the service technician must throughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the monitor by the manufacturer has become defective, or inadvertently defeated during servicing.
   Therefore, the following checks should be performed for continued protection of the customer and service technician.

6. There are so many dangerous points inside of cabinet, so take care when servicing.

High Voltage

This monitor is provided with a high voltage hold down circuit for clearly indicating that voltage has increased in excess of a predetermined value.

Comply with all notes described in this Service Manual regarding this hold down circuit when servicing, so that this hold down circuit may function correctly.

Service Warning

With minimum Brightness and Contrast the operating high voltage in this display is lower than 27KV.

If any component having influence on the high voltage is replaced, confirm that the high voltage with minimum Brightness and Contrast is lower than 30KV.

To measure high voltage use a high impedance high voltage meter.

Connect (-) to chassis earth and (+) the CRT anode button. (See the following connection diagram Fig. 1)

NOTE:

1) Turn power switch off without fail before making the connection to Anode button.
2) Before turn power switch ON, confirm the line voltage that is set to the rated voltage.

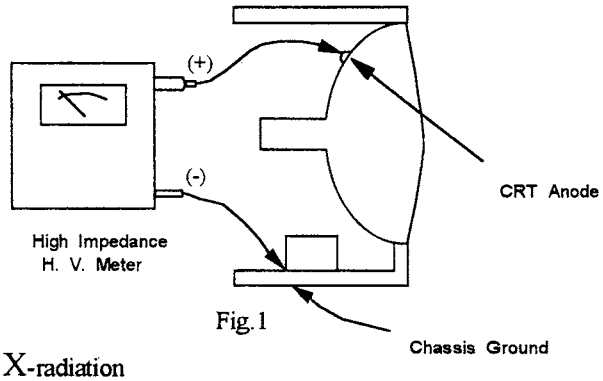

Fig.1

X-radiation

TUBE: The primary source of X-radiation in this monitor is the picture tube. The tube utilized in this chassis is specially constructed to limit X-radiation emissions.

For continued X-radiation protection, the replacement tube must be the same type as the original, manufacturer approved type. When troubleshooting and making test measurements in a monitor with a problem of excessive high voltage, avoid being unnecessarily close to the picture tube and the high voltage components. Do not operate the chassis longer than is necessary to locate the cause of excessive voltage.

CHECK OF HIGH VOLTAGE HOLD DOWN CIRCUIT

Checking of the High Voltage hold down circuit operation.

1. Turn the switch of the unit OFF.
2. Set the line voltage to rated value Brightness, Contrast controls to Max.
3. Connect a DC voltmeter and an adjustment jig as shown in Fig. 2.
4. Set the adjustment VR to fully counter clockwise.
5. Turn the switch of the unit ON.
6. Receive signal 68 KHz with a full screen white pattern.
7. Gradually rotate the adjustments VR clockwise.
8. Check that the reading of DC voltmeter is less than when picture disappears.
9. Turn the switch of the unit OFF immediately after checking that the picture disappears.
10. Remove the adjusting and the DC voltmeter.

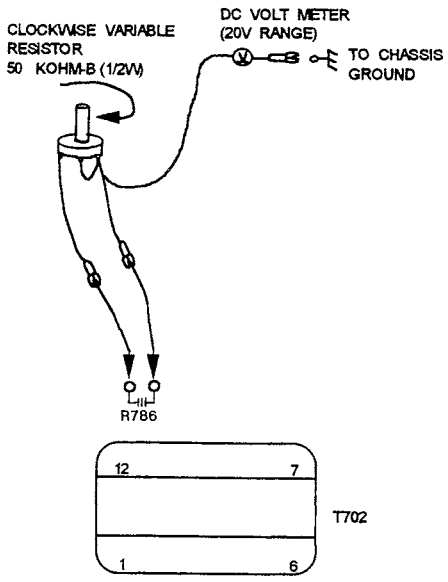

Fig. 2 CHECKING USING JIG

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the color monitor units have special safety related characteristics.

These are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the manufacturer recommended replacement one, shown in the parts list in the Service Manual, may create shock, fire, X-radiation, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult this Service Manual.

FEATURES

- Wide compatibility range of graphics standard.
- Microprocessor based with digital controls.
- Bright picture with low distortion is ensured due to employment of high performance yoke.
- Power saving function ON/OFF to save power consumption.
- High reliability and high-performance developed by HITACHI advanced technology on color graphic monitor.

WARNING

1. The product contains components which are critical for X-radiation safety. Read this service manual carefully for proper replacement. Maximum CRT anode voltage must not exceed 27kV at any operation conditions. To measure the anode voltage, use the high impedance meter, connect (-) to chassis ground and the high voltage, lead from (+) to anode.

2. Critical components are marked with the symbol of ⚠ in the material list. For continued protection against X-radiation, replace only with the same type and rating componenys.

3. For the recognized rating 3.15A or 4A /250Vac fuse replacement, shall be used as below listing manufacturer and type number only :

Manufacturer name	Type number		
Wickmann-Werke	19195	or	19181
Cooper	S506	or	S505
Schuter	FST	or	SPT
Triad	50T	or	50CT
Elu Elektro-Union	179200	or	179120
Belfuse	S5T	or	5HT

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CHAPTER 1 SPECIFICATION

1.1 Introduction

The CM640 color monitor is a multi-scanning 31 to 69kHz color display. This monitor is designed for the high performance with digital OSD control & power saving function. This monitor can match with all of the professional VGA adaptor and APPLE MAC II computer.

1.2 Specification

§ Display capability **1280 x 1024** resolution (depend the video adaptor)

§ Picture tube

17" (15.9V) diagonal, 90 degree, ARASC coating
0.28mm dot-pitch
non-glare etched screen
46% transmission
Super Hight Contrast tube.
EADF gun (Elliptical Aperture Dynamic Focus)
DBF (Dynamic Beam Forming)

§ Sync signal

composite sync, TTL (+) (-), (sync on green 0.3Vpp optional)
sperate sync, TTL (+) (-)

§ Video signal

analog (0.7 Vpp), D-SUB type

§ Scan frequency

auto sync H from 31 to 69kHz
V from 50 to 130 Hz

§ Active display area

305 (H) x 230 (V) mm or 290 (H) x 230 (V) mm

§ Video clock friquency

110 MHZ

§ Power consumption

135W max.

1.3 Description

1.3.1 Warning

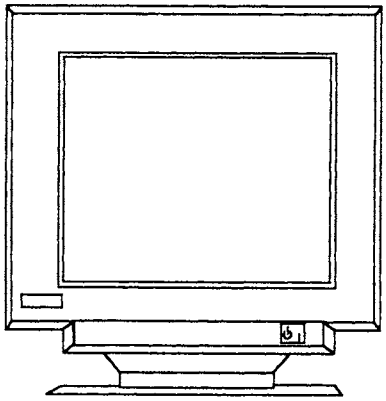
Please follow this manual to setup your monitor. Please notice the input AC power source range before plug in power cord.

1.3.2 Power cord

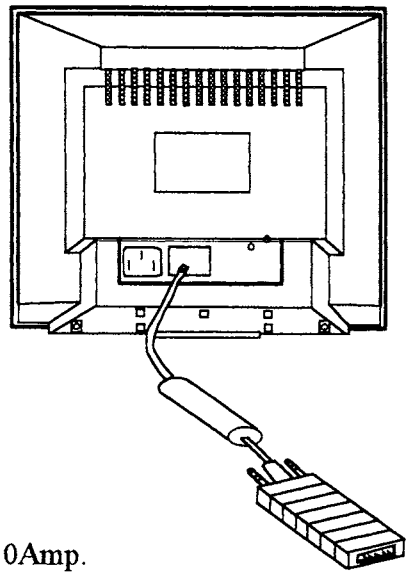
There are two kinds of the power cord may be attached according to your power system. The monitor had been pre-set in the factory. Please check the label on the rear bucket before plug the power cord.

1.3.3 Appearance

Front view :



Rear view :



★ Power supply

90 - 132 Vac, 60/50Hz, 2.0Amp.
180-264 Vac, 60/50Hz, 1.2Amp. (auto select)

★ Signal cable

15 pin , D-type male connector DB-15 pin out

★ External controls

§ Front side :

Power switch	:	to turn the power "ON" or "OFF".
Status	:	used to select OSD windows for display.
Function →	:	used to select control front cursor move right.
Function ←	:	same above cursor move left.
Adjust +	:	used to adjust up or right.
Adjust —	:	used to adjust down or left.
Save	:	to save all adjustments.

§ Rear side : AC input socket

◎ Detail description please see user's manual ◎

★ Operating environment

Temperature	:	5 to 35 degree Celsius
Humidity	:	10 to 80% R.H.
Altitude	:	0 to 10,000 ft

★ Net weight

17.5 Kg (38 lbs) app.

★ Dimension

(W) 412 mm × (H) 402 mm × (D) 413.5 mm

1.3.4 User controls

Power switch
Status
Function →
Function ←
Adjust +
Adjust —
Save

1.3.5 Internal controls

【a】 CRT DRV PCBA :

R27R	R-BIAS
R27G	G-BIAS
R27B	B-BIAS
R214	SUB CONTRAST

【b】 M/PS PCBA :

R933	POWER SUPPLY VOLTAGE ADJ.
R532	HOR. FREE RUN ADJ.
R773	HIGH VOLTAGE ADJ.
R755	SUB BRIGHT ADJ.
R70V	H-CENTER ADJ.
R797	ABL ADJ.
R608	V-CENTER ADJ.
R716	SUB H-SIZE ADJ.

1.3.6 Packing list

★ User manual
★ Power Cord

CHAPTER 2 CIRCUIT DESCRIPTION

2.1 Power supply

The power consumption of the CM640 color monitor is 135W max. The input line voltage (90VAC ~ 264VAC) are rectified by the D901 ~ D904 to drive the PWM circuit (I901/Q901) and then transmit the energy by T901 to the output, **R915/C950/R904/R922/R923/R924/R92T/R925/Q902/Q903/R920/C915/D911/C916/ R919 current protect circuit and D90Z/R921 are over voltage protect circuit.**

The power supply circuit can auto-degauss by R90T at first turn-ON, it also can be manual-degauss by the circuit of Q904/S902.

The power supply circuit supplies 6 DC voltage as below:

+7.2V : for CRT heater & MICON IC (I101)
-11V : for vertical deflection CKT
+15.0V : for horizontal sync processor CKT & vertical deflection CKT
+20.5V : for hor. drive CKT
+80V : for video power output
+200V : for scan & H.V circuit

The power saving circuit formed by Q909, Q908, Q911, Q910 and controlled by I101 CPU pin 29 and pin 36.

2.2 Video amplifier

I201 is the video pre-amplifier. Via clamp pulse from pin 35 of I202 is the R, G, B output circuit to get enough video amplitude for CRT display. I301 is OSD generator IC, pin 13, 15, 17 are OSD output signal.

2.3 MICRO controller and sync processor circuit

The I101 is 8-bit single ship microprocessor, integrating ROM/RAM and I/O ports. Pin 17, pin 18 are the input signal of horizontal and vertical sync. and pin 19, pin 20 are the output signal of horizontal and vertical sync.

The I101 pin 11, 12, 13, 14, output CS correction signal for hor. linearity correction and automatic detect fH and fV then output power saving control signal from pin 29, 36.

The I101 output pin 16 (serial data) / pin 31 (serial clock) to control EEPROM I102, and pin 1, 2, 3, 4, 5, 43, 45, 46 are PWM DAC and OSD generator U301 to show the font on the screen then controlled by DAC and data saved to EEPROM.

2.4 Vertical circuit

The I501 pin 15 output vertical sawtooth to drive I601 (vertical output) and control by pin 16 (DC vertical amplitude adjustment), the I601 pin 5 drive the yoke for vertical deflection, D605 and C604 are pump up voltage generator for the output.

2.5 Deflection circuit

2.5.1 High voltage circuit:

(a) The Q504, I702, I701 generate a PWM pulse to drive Q731 & FBT and generator high voltage 26.0KV ± 0.5KV.

(b) The DC feed back voltage from FBT pin 11 to driver emitter follow Q728 and control I701 PWM pulse.

2.5.2 Scan circuit:

(a) Step down CKT.
The I701, I702, Q703, Q704, Q705, Q706 generate a PWM pulse to drive Q702, L701 step down CKT the convert DC voltage from 200V to 50V ~ 120Vdc, depend on horizontal frequence.

(b) Scan output CKT.
The Q713 to drive T702/Q714/T701 and generate scan pulse to control scan line.

(c) Dynamic focus CKT.
Q727 amplify the vertical parabola and T703 for horizontal parabola couple to secondary of T703, then modulated and fed to FBT focus part (FBT pin 12).

(d) H-center CKT.
D706, D707, Q707, Q708 & R70V formed a raster center CKT for picture center adjustment.

(e) Pincushion & trapezoid control CKT.
Pincushion & trapezord parabola wave from I101 & I403 to modulated I701 DC and to drive I702 generate a PWM pulse to modulate step down output DC.

(f) Rotation CKT.
The I101 & Q602, Q603, Q604, Q605 formed a rotation CKT to tilt the picture.

2.6 X-ray protection circuit

This circuit prevents the X-Ray radiation from exceeding the allowable value. When voltage rises abnormally, the voltage rectified by D718 and C761 will be increase. It will be cause D74Z, Q912 on, the power saving CKT will be enable then the hor. sync. processor I501, hor. scan CKT High voltage CKT will be shut down.

The X-Ray protection circuit is reset by turning off the power switch.

2.7 DDC1/2B

I102 operates the DDC1/2B function. After the monitor turns on, Via the clock signal of Vsync. (Vclk), I102 will send EDID data repeatedly to pin 12 of D-sub connector.

Via serial clock of SCLK, I102 can send EDID data with PC bi-directional.

CHAPTER 3 CIRCUIT ADJUSTMENTS

3.1 Preparation for alignment

(1) Preset all of the internal VRs to the center position.
(2) Set up unit and warm up for 30 minutes at least.
(3) 6 Factory preset modes show below :

Mode	Mode name	Resolution	Frequency (Fh/Fv)
1	Standard VGA	640 x 400	31.47 KHz / 70 Hz
2	VGA	640 x 400	37.86 KHz / 85 Hz
3	VESA	1024 x 768	60.02 KHz / 75 Hz
4	VESA	800 x 600	53.67 KHz / 85 Hz
5	VESA	1280 x 1024	63.98 KHz / 60 Hz
6	VESA	1024 x 768	68.68 KHz / 85 Hz

3.2 Alignment items

A. Test patterns
   a. Cross-hatch.
   b. "E" & "m" pattern.
   c. Full white.
   d. One square white pattern (one rectangular window 20% Display video).
   e. Back ground raster pattern.
B. Main board all VR's setting to center position.
C. Power supply voltage adjustment
   (1) Select display mode (1) with cross-hatch pattern.
   (2) Adj. R933 to get 15.0V ± 0.2V at C933 ⊕.
   (3) Check the voltages are as follow.

Heater	:	6.2 ± 0.2V	(CDT heater)
Video output	:	80 ± 3V	(D915 cathode)
Hor. Drive	:	20.5 ± 1V	(D916 cathode)
Hor. Scan & Hv. Block	:	200 ± 4V	(D914 cathode)
Ver. Defl.	:	-11.0 ± 0.5V	(D919 anode)

D. Sync and deflection circuit
   Set brightness to raster cut-off position, contrast to the maximum position, and rotation to picture no tilt position.
   D.1 Horizontal free-running adjustment (R532)
      (1) Select display mode (5) with inverse cross-hatch pattern.
      (2) Short R530(near I501) to GND.
      (3) Adjust R532 to make the picture hold in horizontal direction only. Move away short-wire and make sure the picture is stable.

D.2 High voltage adjustment (R773)

(1) Select display mode (1) with cross-hatch pattern.

(2) Adjust R773 to obtain anode voltage equal to 26.0 ± 0.2KV(Hitachi tube).

(3) Adjust G2 control VR to get 540V ± 10V (R202).

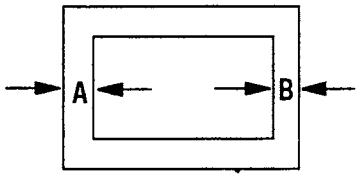
D.3 Hor.-center adjustment (R70V) and external Hor.-phase check

(1) Select display mode (5) with inverse cross-hatch pattern.

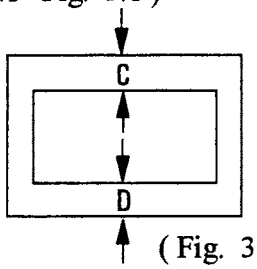
(2) Set brightness to Max. , and select phase icon then adjust up/down key to get picture in the center of raster.

(3) Adjust R70V horizontal center control to make the raster just on the horizontal center of the bezel opening.

(| A - B | ≦ 2mm as shown in belows Fig. 3.1)



(Fig. 3.1)



(Fig. 3.2)

D.4 Hor.-phase Check

(1) Select display mode (1-6) with inverse cross hatch pattern.

(2) Check picture in the center of raster for all mode.
then select phase icon and adjust up/down key if necessary.

D.5 V-center adjustment (R608) and external V-position check

(1) Select display mode (5) with inverse cross-hatch pattern.

(2) Set brightness to max and select V-position OSD icon value to 128.

(3) Adjust R608 V-center control to make the raster just on the vertical center of the bezel opening.

(| C - D | ≦ 1mm as shown in above Fig. 3.2)

D.6 V-position check

(1) Select display mode (1-6) with inverse cross-hatch pattern.

(2) Check picture in the V-position of raster for all mode. then select V-position icon and adjust up/down key if necessary.

D.7 Sub H-size adj. (R716)

(1) Select display mode (2) with inverse cross-hatch pattern.

(2) Select H-size icon,then adj. up key to make the picture size OSD icon value to 230.

(3) Adj. R716 control to make the picture horizontal size almost full scan.

D.7-1 Hor.-size check and Ver.-size check

(1) Select display mode (1-6) with inverse cross-hatch pattern.

(2) Select H-size icon, then adj. up/down key to make the picture horizontal size equal to 305 ± 3mm.

(3) Select V-size icon, then adj. up/down key to make the picture vertical size equal to 230 ± 3mm.

(4) If left and right side pincushion unbalance appear, select pinbalance icon then adjust to get symmetrical at both side.

(5) If corner PIN distortion appear, select PIN corner icon top & bottom, then adjust to get geometric at best.

D.8 Side pin-cushion / trapezoid / parallelogram / pinbalance top balance & bottom balance /top corner & bottom corner / s curve.

(1) Select display mode (1-6), with inverse cross-hatch pattern.

(2) Select pincushion top corner bottom corner icon then adjust up/down key to get the straight vertical line at the edges of the screen, otherwise adj. curve icon. Then select trapezoid icon then adjust up/down key to get the image sharp to a rectangle.

(3) If left and right side or top and bottom unbalance appear, select parallelogram or top and bottom corner icon then adjust to obtain best geometric distortion.

(4) Check geometric distortion within the pincushion spec. +1.0/-1.5mm, readjust item (2)-(3) if necessary.

(5) Also make sure that H-Size is still within the spec. after pincushion and geometric distortion adjusted. Readjust H-size up/down key if necessary.

D.9 Rotation adjustment

(1) Select display mode (5) with inverse cross-hatch pattern.

(2) Select rotation icon then adjust up/down key to get display pattern without tilt.

D.10 Linearity (R741)

a. Select display mode (5) with inverse cross-hatch pattern.

b. The horizontal linearity should be less than 10% and vertical linearity should be less than 10%.

c. Change to others mode the horizontal & vertical linearity should be less than 10%.

E. Video circuit

E.1 Low light white balance adjustment (R27B , R27R , R27G)

(1) Select display mode (1) with back ground raster.

(2) Make sure brightness at maximum position & contrast at minimum position.

(3) Set R27B, R27R, R27G to center position.

(4) Adjust Sub-Brightness R755 to get the raster equal $3.5 \pm 0.7 cd/m^2$ (1.0 ± 0.2 FL.) at screen of center.

Then fine adjust R27B , R27R, R27G to get

$x = 0.283 \pm 0.010$

$y = 0.298 \pm 0.010$

(5) Recheck and make sure low light output is lower than $2.0 \sim 5.0 cd/m^2$ ($0.6 \sim 1.5$FL.) if can't meet readjust item (4) step.

E.2 High light white balance adjustment and sub-contrast adjustment (R214)

(1) Select display mode (1) with one square white pattern.

(2) Set brightness OSD icon value to 128, and contrast at maximum position.

(3) Adjust sub-contrast R214 to center position then select R, G, B color control icon then adjust up/down key to get CIE coordinates

Under color temperature condition 9300° K + 8 M. P. C. D.

$x = 0.283 \pm 0.010$

$y = 0.298 \pm 0.010$

Set brightness at maximum then adjust R214 to get $Y=180 \pm 3 cd/m^2$ (52.6 ± 0.9 FL.)

(4) Under color temperature condition 6500° K

Select R. G. B color control icon then adjust up/down key to get CIE coordinates.

$x = 0.313 \pm 0.010$

$y = 0.329 \pm 0.010$

F. Focus adjustment

(1) Select display mode (5) with "m" & "E" pattern.

(2) Adjust FBT Focus-H VR, watch only horizontal line width at screen center is minimized.

(3) Adjust FBT Focus-V VR, watch only vertical line width at screen center is minimized.

(4) Change pattern to Reverse "m" & "E" pattern then check focus performance over entire screen. If necessary, repeat step (2) ~ (3) to get uniform focus.

G. X-ray protector circuit

(1) Select display mode (5) with full white pattern.

(2) To short the R786 by using a jumper wire fixture. (It is to simulation the same as the increasing high voltage up to 32KV.)
The X-ray circuit should be actived, and also LED will be RED.

(3) Turn the power off, take away the fixture.

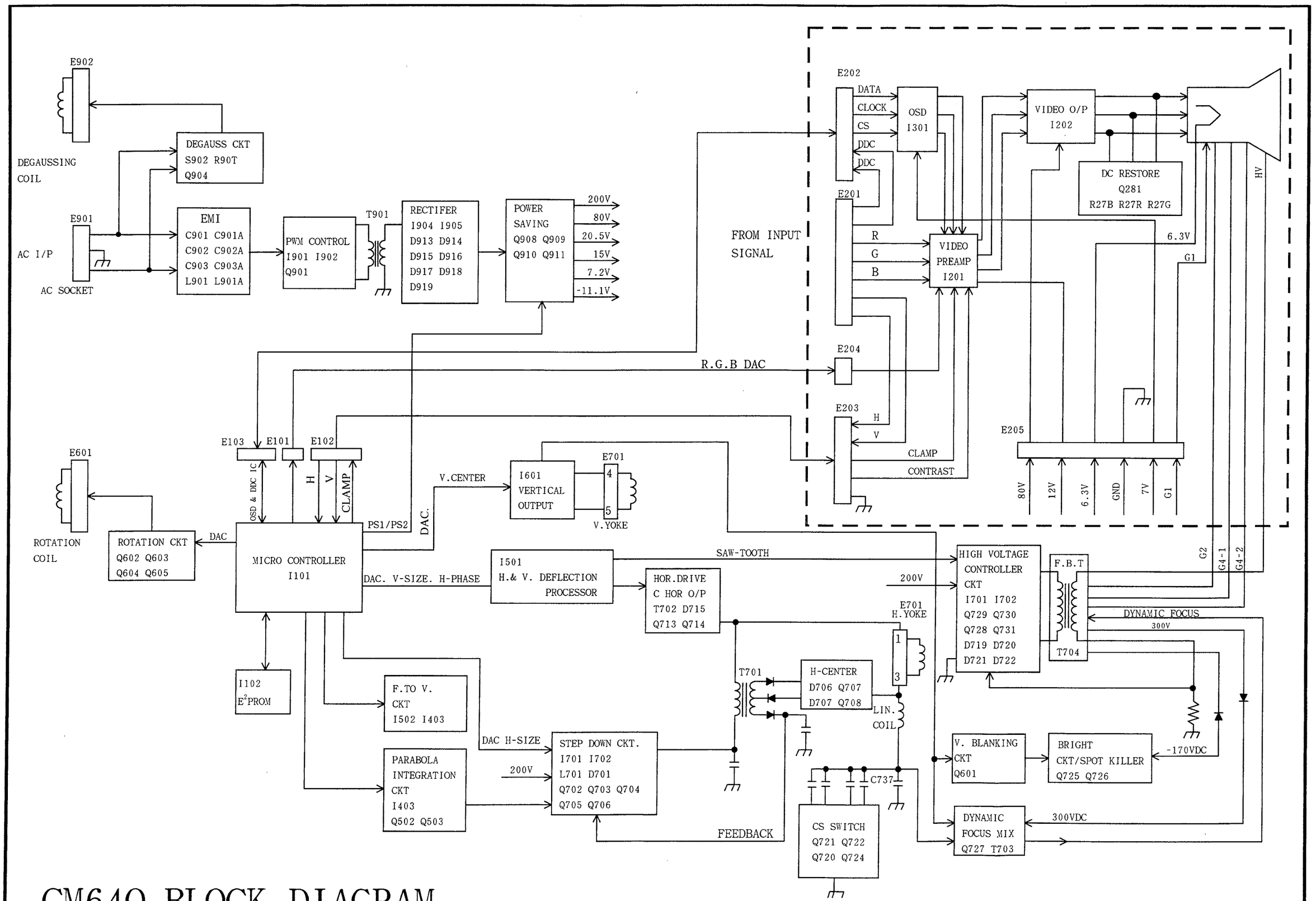
(4) After 5 seconds, the picture should be display when power on.

H. ABL adjustment (R797)

(1) Select display mode (1) with full white pattern.

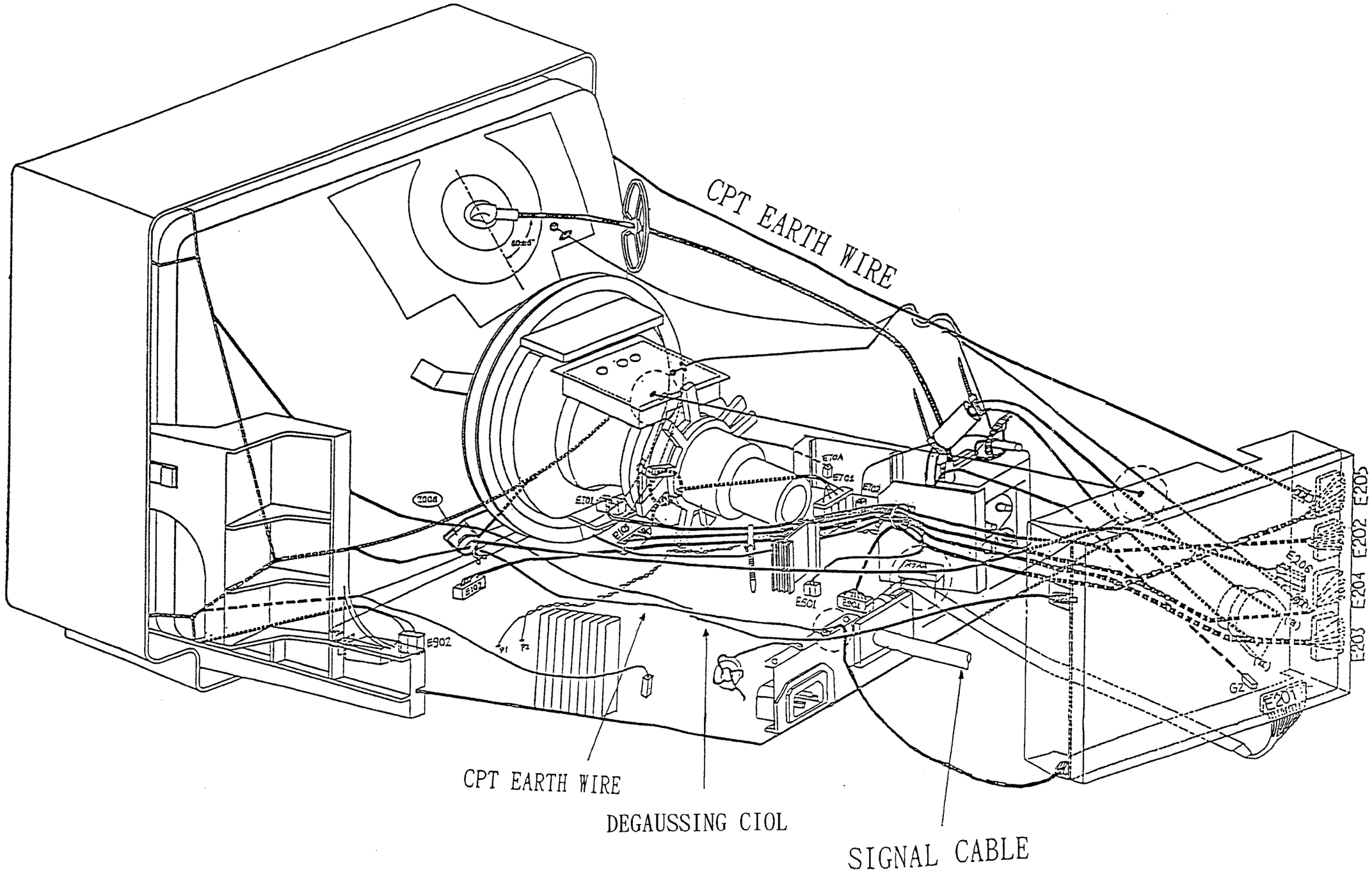
(2) Set contrast & brightness to max.

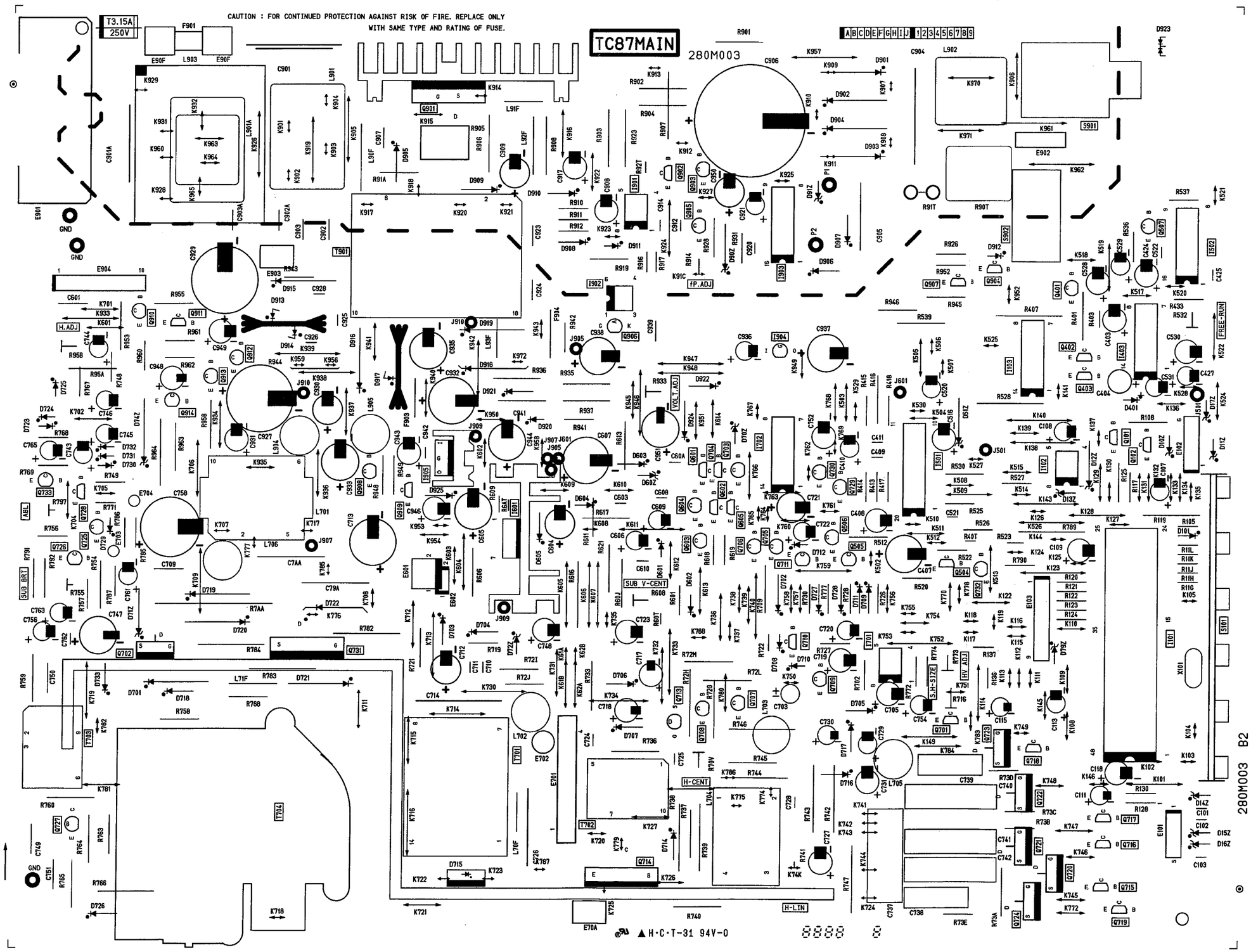
(3) Adjust R797 to get the luminance equal to **135±3 cd/m² (39.4±0.9FL.)** measured at screen of center.



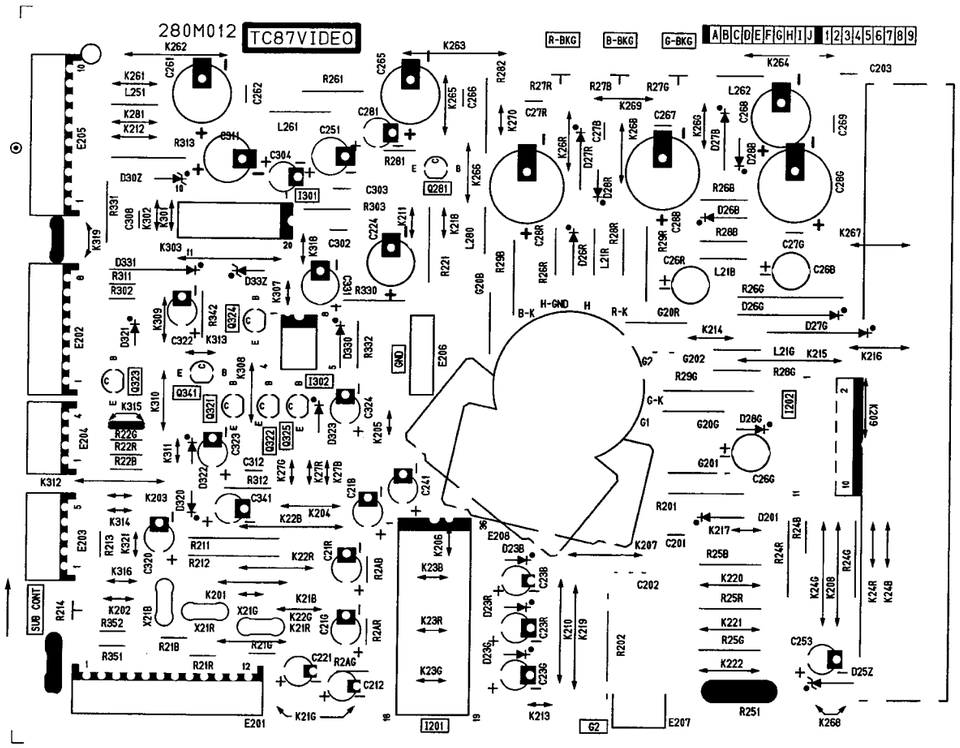
CM640 BLOCK DIAGRAM

CM640 WIRING DIAGRAM

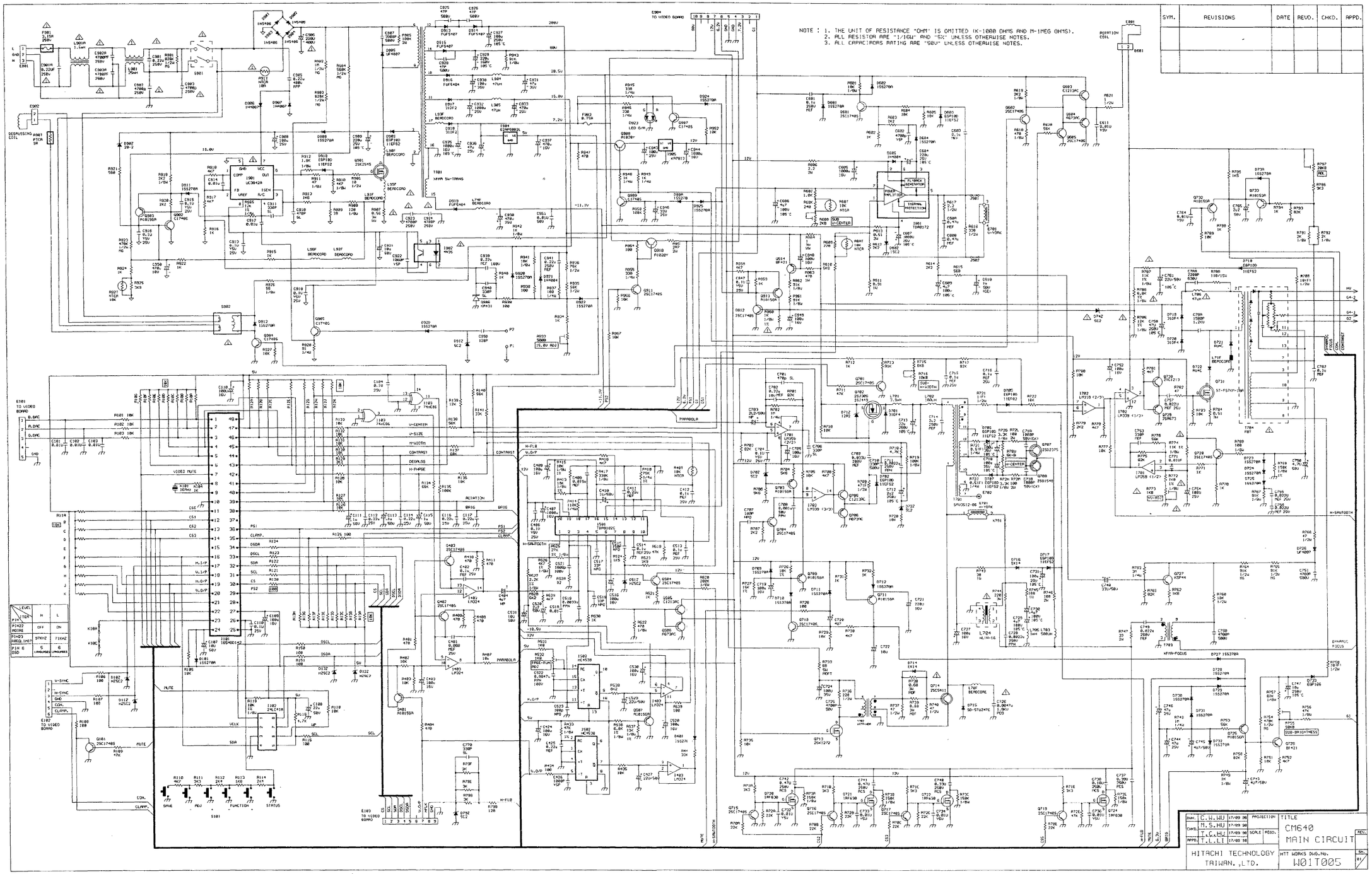


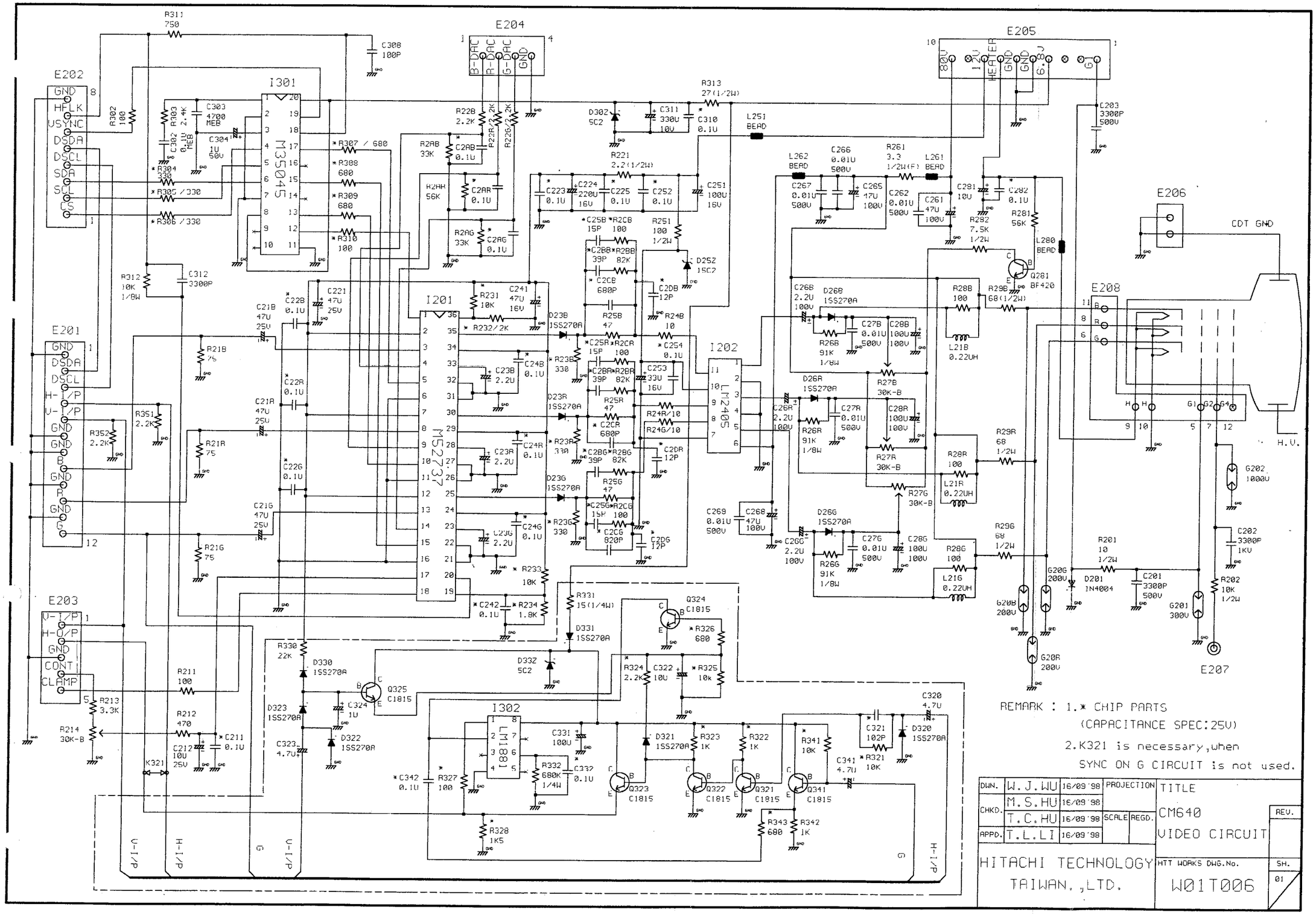


CM640 MAIN PCB ASS.



CM640 VIDEO PCB ASS.

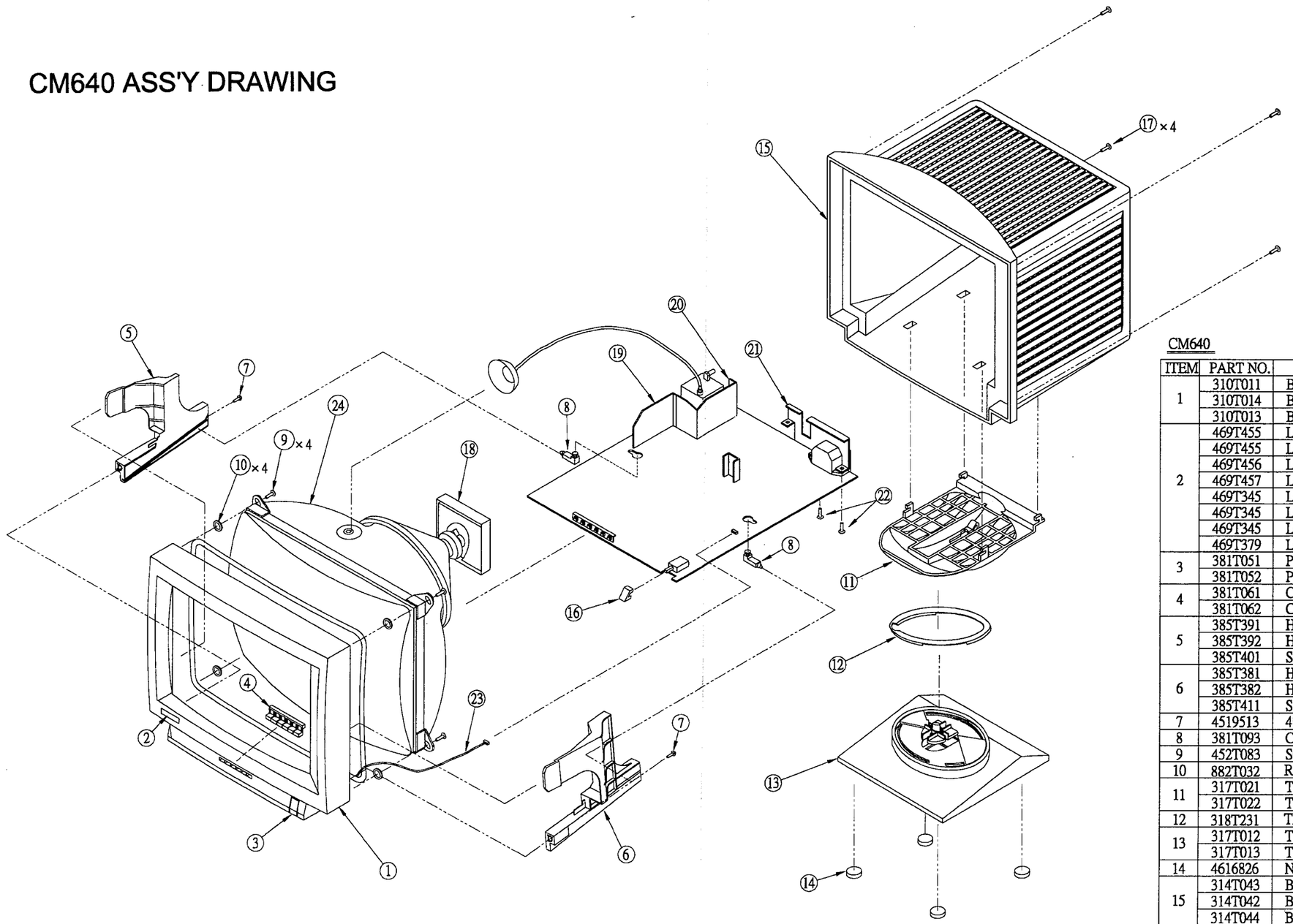

NOTE : 1. THE UNIT OF RESISTANCE "OHM" IS OMITTED (K-1000 OHMS AND M-1MEG OHMS).
2. ALL RESISTOR ARE "1/16W" AND "5%" UNLESS OTHERWISE NOTES.
3. ALL CAPACITORS RATING ARE "50V" UNLESS OTHERWISE NOTES.
SYM. | REVISIONS | DATE | REVD. | CHKD. | APPD.
DSN. C.W.WU 17/09 '98
CHKD. M.S.HU 17/09 '98
T.C.HU 17/09 '98
APPD. T.L.LI 17/09 '98
PROJECTION
SCALE
MEGO.
TITLE
CM640
MAIN CIRCUIT
REV.
HITACHI TECHNOLOGY TAIWAN.,LTD.
HTT WORKS DWG.No.
W01T005
SH.
01



REMARK : 1.* CHIP PARTS
(CAPACITANCE SPEC:25V)
2.K321 is necessary,when
SYNC ON G CIRCUIT is not used.

DWN.	W.J.WU	16/09'98	PROJECTION	TITLE	
CHKD.	M.S.HU	16/09'98		CM640	REV.
	T.C.HU	16/09'98	SCALE	REGD.	
APPD.	T.L.LI	16/09'98		VIDEO CIRCUIT	
HITACHI TECHNOLOGY TAIWAN.,LTD.			HTT WORKS DWG.No.		SH.
			W01T006		01

CM640 ASS'Y DRAWING

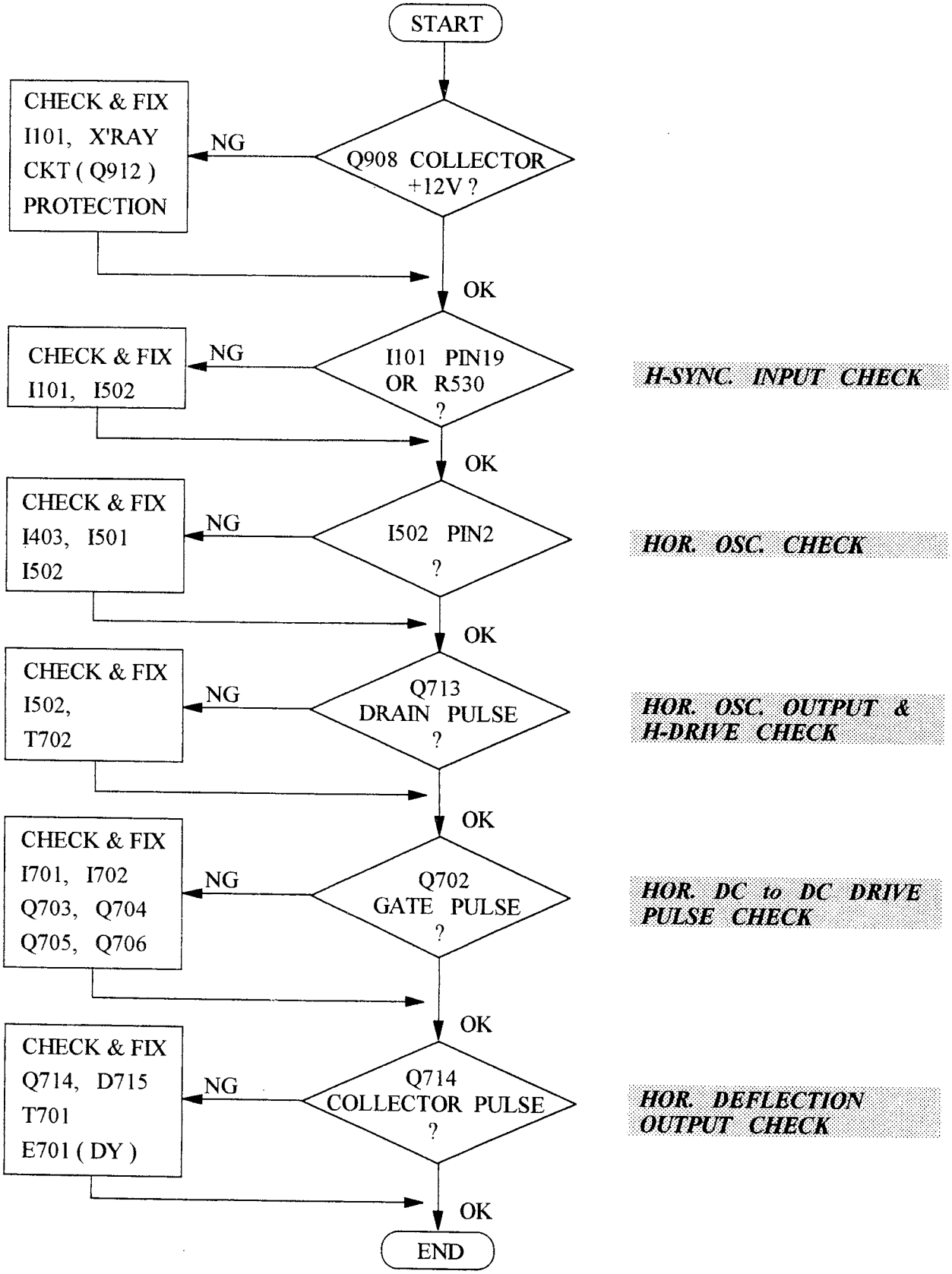


CM640

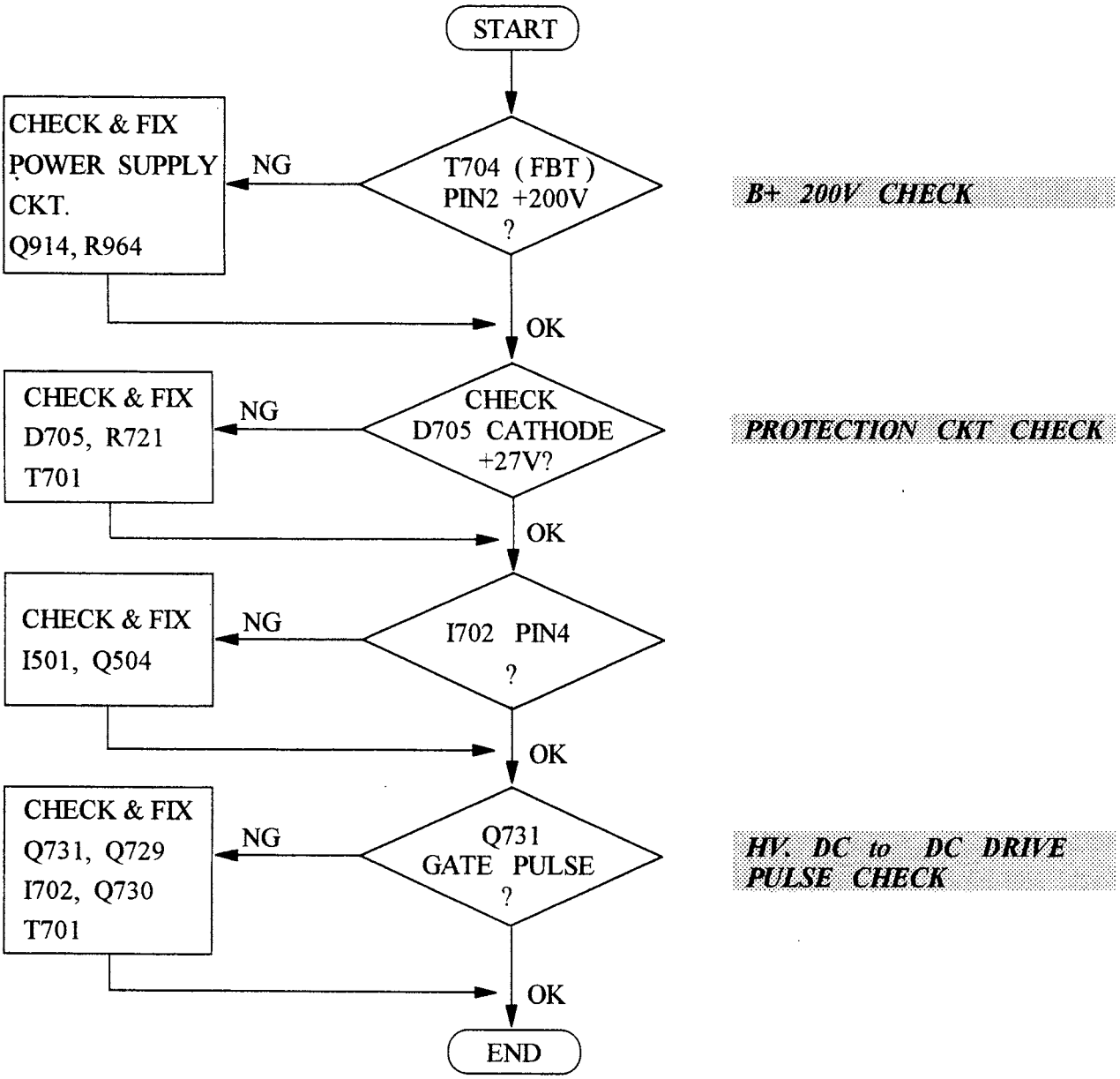
ITEM	PART NO.	DESCRIPTION	QTY
1	310T011	BEZEL CM640 (U)	1
	310T014	BEZEL CM640 (ET/J)	1
	310T013	BEZEL CM640 (PC)	1
2	469T455	LOGO SHEET LABEL U-511	1
	469T455	LOGO SHEET LABEL U-512	1
	469T456	LOGO SHEET LABEL U-RO	1
	469T457	LOGO SHEET LABEL ET-301	1
	469T345	LOGO SHEET LABEL ET-751	1
	469T345	LOGO SHEET LABEL ET-031	1
	469T345	LOGO SHEET LABEL J	1
	469T379	LOGO SHEET LABEL PC	1
3	381T051	POWER BUTTON (U / ET / J)	1
	381T052	POWER BUTTON (PC)	1
4	381T061	CONTORL BUTTON (U / ET / J)	1
	381T062	CONTORL BUTTON (PC)	1
5	385T391	HOLDER R	1
	385T392	HOLDER R -(ET)	1
	385T401	SUPPORT R -(PC/J)	1
6	385T381	HOLDER L	1
	385T382	HOLDER L -(ET)	1
	385T411	SUPPORT L -(PC/J)	1
7	4519513	4*16 B TITE TNE	2
8	381T093	CANOE CLIPS FOR HOLDER	2
9	452T083	SCREW-CHTET-5*25 Zn-Cc	4
10	882T032	RUBBER SPACER	4
11	317T021	TILT UP	1
	317T022	TILT UP (PC/J)	1
12	318T231	TILT SLIDE	1
13	317T012	TILT BASE	1
	317T013	TILT BASE (PC/J)	1
14	4616826	NWS RUBBER FOOT	4
15	314T043	BACK COVER (U)	1
	314T042	BACK COVER (ET)	1
	314T044	BACK COVER (PC/J)	1
16	381T081	KNOB JOINT	1
17	4519513	4*16 B TITE TNE	4
18	433T273	VIDEO SHIELD	1
19	344T413	DEF HEATSINK (Q714)	1
20	344T402	HV HEATSINK (Q731)	1
21	338T071	BRACKET-AC CM640	1
22	452T161	SCREW CBMT 3*10 Zc-Cc	2
23	271M181	COIL DWG. 17"	1
24	DE01701	M41KWB683*74(BE)	1

CHAPTER 5 TROUBLE SHOOTING FLOW CHART

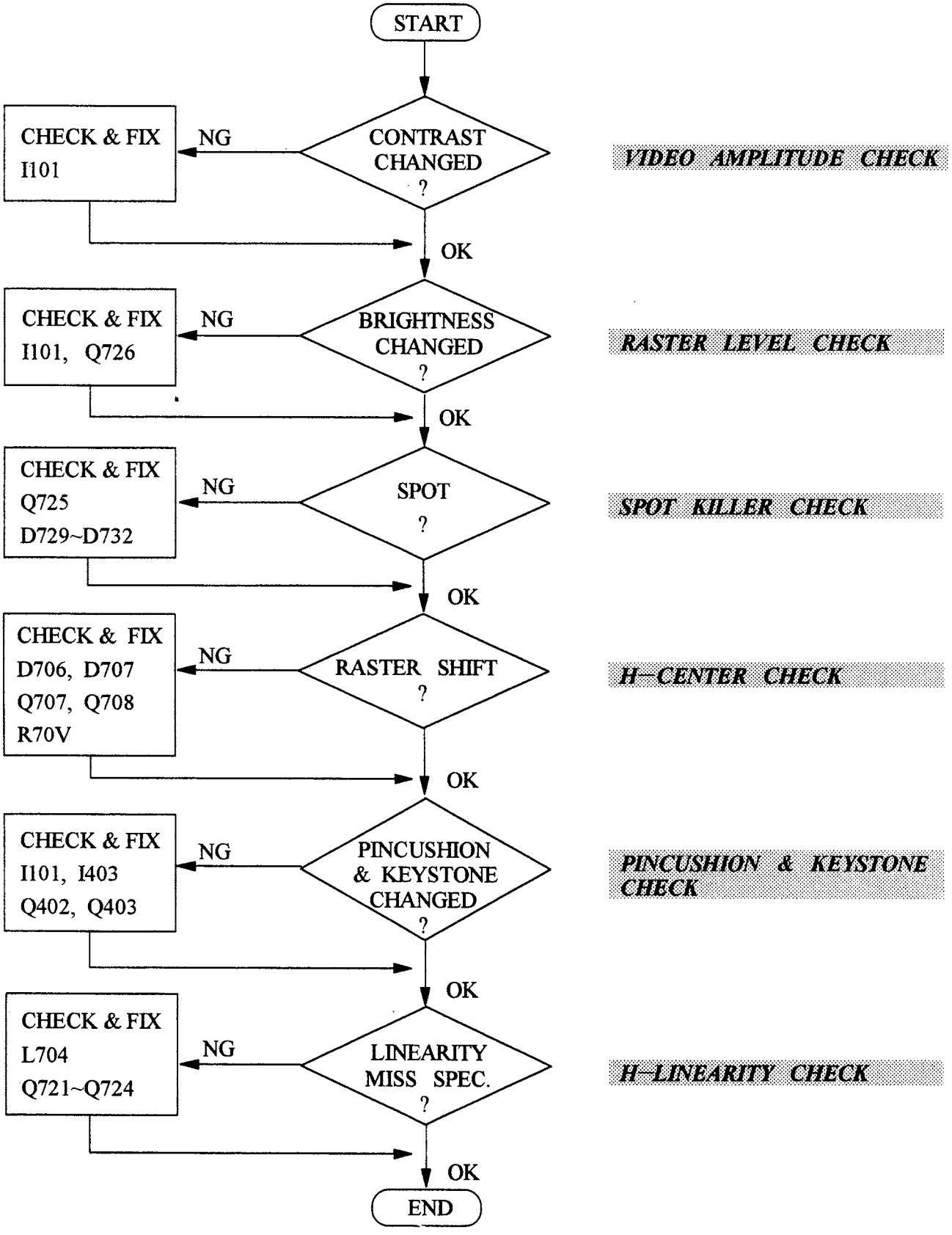
5.1 HORIZONTAL DEFLECTION



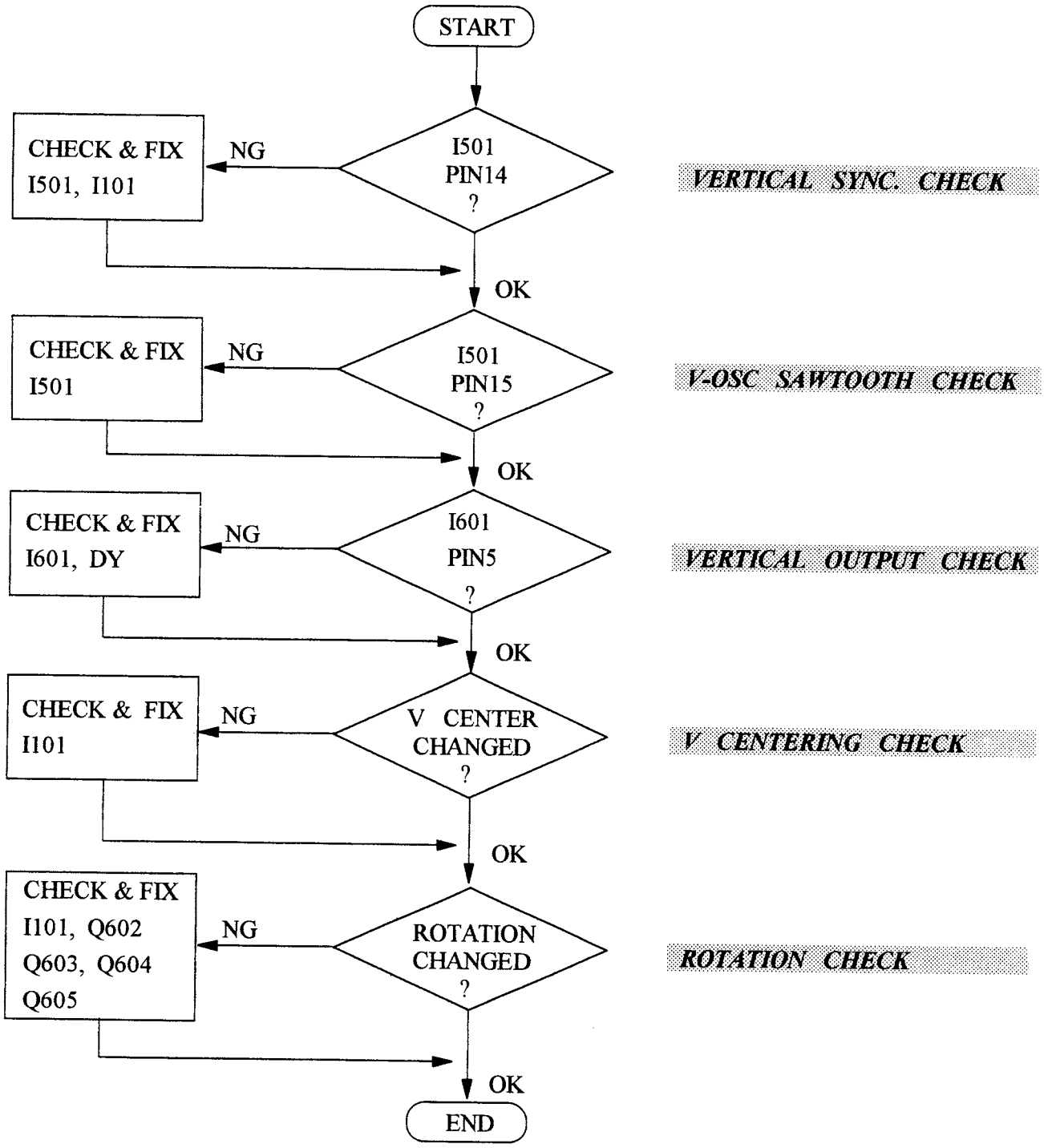
5.2 H. V. CIRCUIT 1



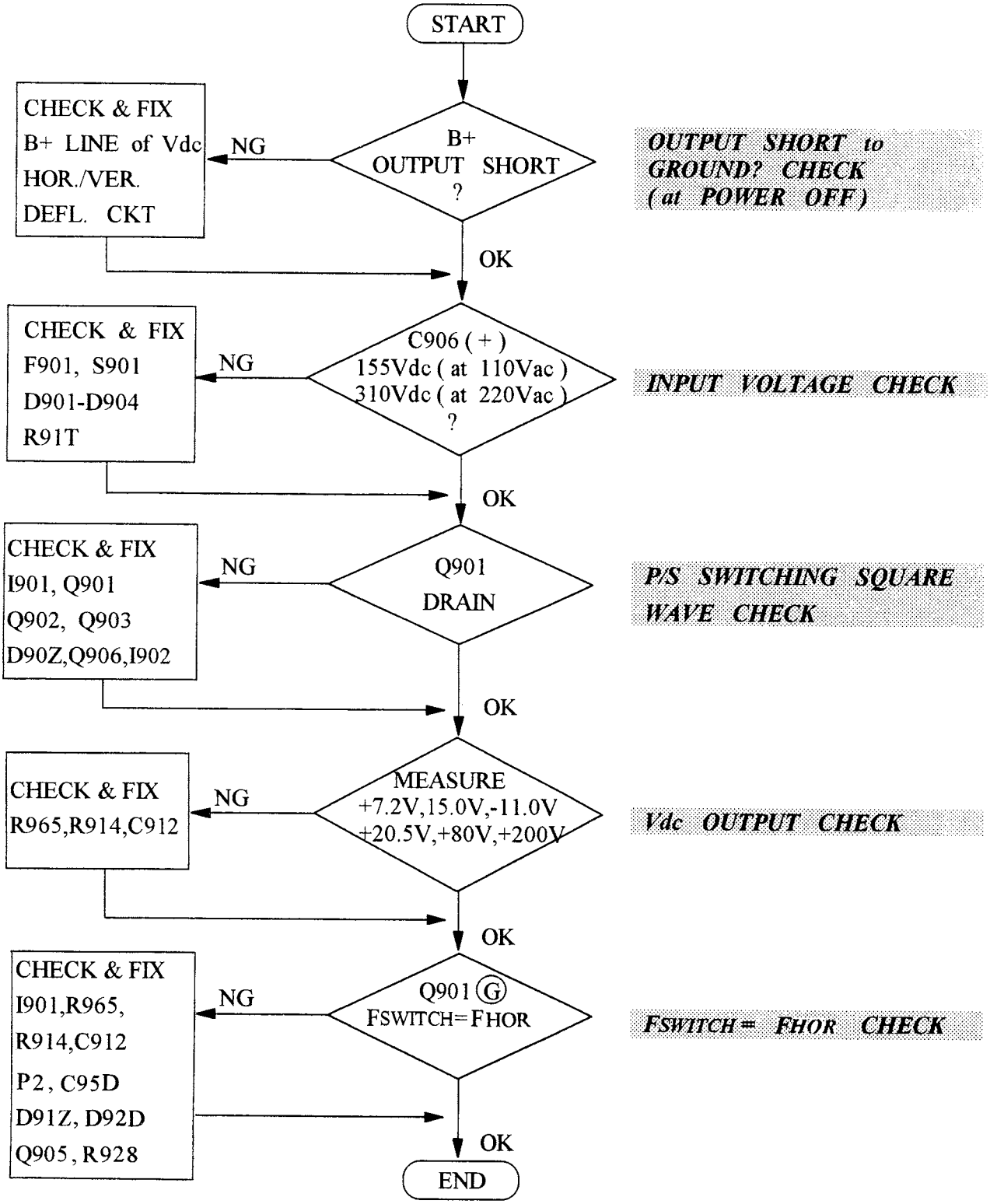
5.3 CONTROL FUNCTION –1



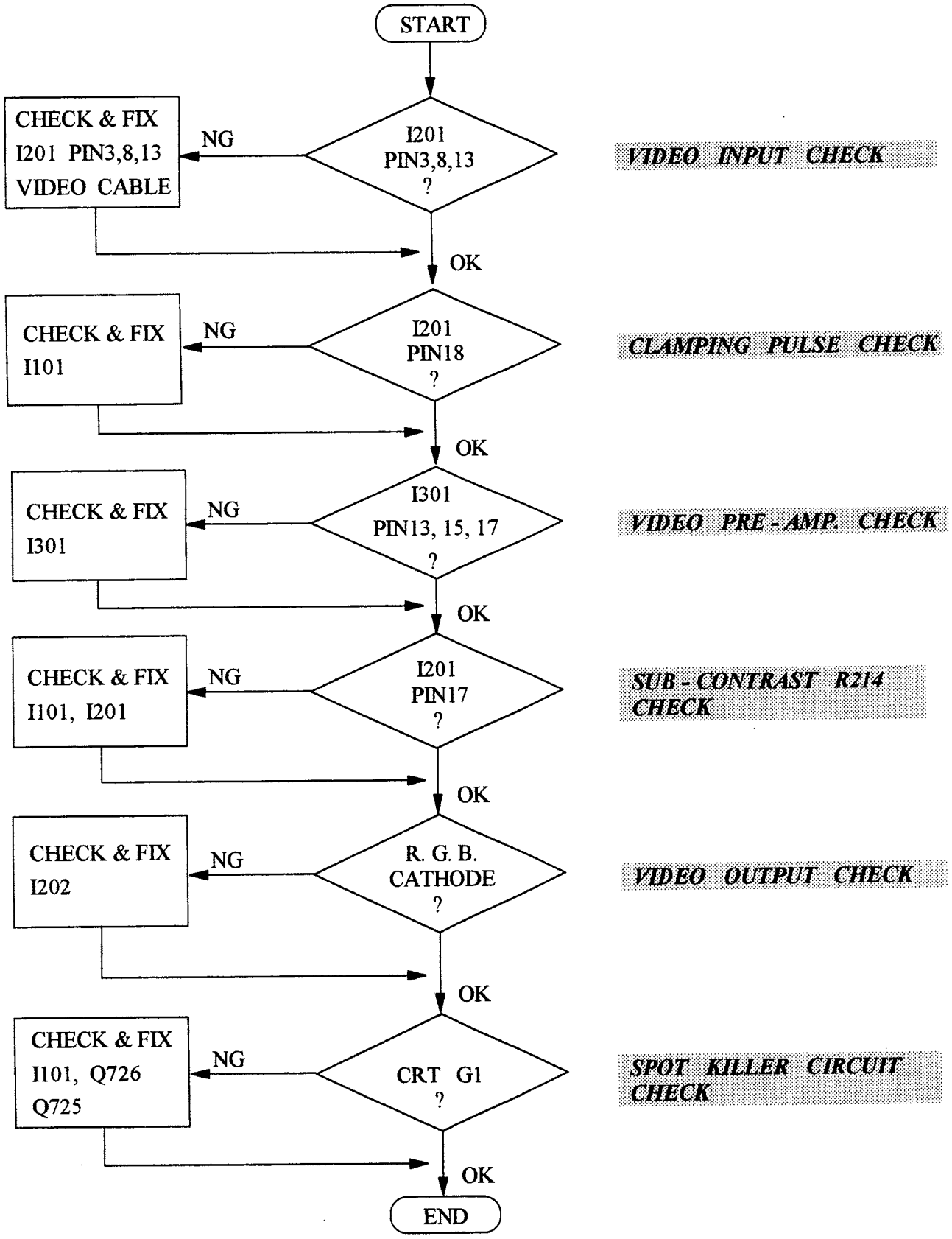
5.4 VERTICAL DEFLECTION



5.5 POWER SUPPLY CIRCUIT



5.6 VIDEO CIRCUIT



REPLACEMENT PARTS LIST

PRODUCT SAFETY NOTE:Components marked with a ⚠ have special characteristics important to safety.
Before replacing any of there components,read carefully,the PRODUCT SAFETY NOTICE of this Service Manual.
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ABBREVIATIONS	Capacitor	CD:Ceramic Disk, PF:Polyester Film, EL:Electrolytic, PP:Ploypropylene, PR:Paper, TA:Tantalu, TM:Trimer,
	Resisors	CF:Carbon film, WW:Wire Would, FR:Fuse Resistor, MG:Metal Glazzed, VR:Variable Resistor, CC:Carbon Composition, MF:Metal Oxide Film.
	Semiconductors	TR:Transistor, DI:Diode, ZD:Zener Diode, VA:Varistor, TH:Thermistor.

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
C101	0244141R	CD 0.01UF+-10% 50V	C266	024M021R	CD 0.01UF +-20% 500V
C102	0244141R	CD 0.01UF+-10% 50V	C267	024M021R	CD 0.01UF +-20% 500V
C103	0244141R	CD 0.01UF+-10% 50V	C268	0800046F	EL 47UF 100V
C104	0893067R	CHIP 0.1UF +80-20% 25V	C269	024M021R	CD 0.01UF +-20% 500V
C107	0800018R	EL 10UF 50V	C26B	0285493R	EL 2.2UF 100V
C108	0800026R	EL 22UF 50V	C26G	0285493R	EL 2.2UF 100V
C109	0800049R	EL 100UF 16V	C26R	0285493R	EL 2.2UF 100V
C110	0893067R	CHIP 0.1UF +80-20% 25V	C27B	024M021R	CD 0.01UF +-20% 500V
C111	0800003R	EL 1UF 50V	C27G	024M021R	CD 0.01UF +-20% 500V
C112	0893069R	CHIP 0.22UF +80-20% 25V	C27R	024M021R	CD 0.01UF +-20% 500V
C113	0800003R	EL 1UF 50V	C281	0800018R	EL 10UF 50V
C114	0893069R	CHIP 0.22UF +80-20% 25V	C282	0893067R	CHIP 0.1UF +80-20% 25V
C115	0800003R	EL 1UF 50V	C28B	0800055F	EL 100UF 100V
C116	0893069R	CHIP 0.22UF +80-20% 25V	C28G	0800055F	EL 100UF 100V
C117	0893069R	CHIP 0.22UF +80-20% 25V	C28R	0800055F	EL 100UF 100V
C118	0800049R	EL 100UF 16V	C2AB	0893067R	CHIP 0.1UF +80-20% 25V
C201	0244507R	CD 0.0033UF +-10% 500V	C2AG	0893067R	CHIP 0.1UF +80-20% 25V
C202	0245611F	CD 0.0033UF +-10% 1000V	C2AR	0893067R	CHIP 0.1UF +80-20% 25V
C203	0244507R	CD 0.0033UF +-10% 500V	C2BB	0228044R	CD 39PF +-5% 50V
C211	0893067R	CHIP 0.1UF +80-20% 25V	C2BG	0228044R	CD 39PF +-5% 50V
C212	0800016R	EL 10UF 25V	C2BR	0228044R	CD 39PF +-5% 50V
C21B	0800042R	EL 47UF 25V	C2CB	0228074R	CD 680PF +-5% 50V
C21G	0800042R	EL 47UF 25V	C2CG	0228076R	CD 820PF +-5% 50V
C21R	0800042R	EL 47UF 25V	C2CR	0228074R	CD 680PF +-5% 50V
C221	0800042R	EL 47UF 25V	C2DB	0228032R	CD 12PF +-5% 50V
C223	0893067R	CHIP 0.1UF +80-20% 25V	C2DG	0228032R	CD 12PF +-5% 50V
C224	0800058R	EL 220UF 16V	C2DR	0228032R	CD 12PF +-5% 50V
C225	0893067R	CHIP 0.1UF +80-20% 25V	C302	0880057R	PF 0.1UF +-10% 50V
C22B	0893067R	CHIP 0.1UF +80-20% 25V	C303	0880039R	PF 0.0047UF +-10% 50V
C22G	0893067R	CHIP 0.1UF +80-20% 25V	C304	0800003R	EL 1U 50V
C22R	0893067R	CHIP 0.1UF +80-20% 25V	C308	0246464R	CD 100PF +-5% 50V
C23B	0800005R	EL 2.2UF 50V	C310	0893067R	CHIP 0.1UF +80-20% 25V
C23G	0800005R	EL 2.2UF 50V	C311	0800065R	EL 330UF 10V
C23R	0800005R	EL 2.2UF 50V	C312	0244107R	CD 0.0033UF +-10% 50V
C241	0254504R	EL 47UF 16V	C401	0893025R	CHIP 0.068UF +-10% 25V
C242	0893067R	CHIP 0.1UF +80-20% 25V	C402	0893027R	CHIP 0.1UF +-10% 25V
C24B	0893067R	CHIP 0.1UF +80-20% 25V	C403	0800049R	EL 100UF 16V
C24G	0893067R	CHIP 0.1UF +80-20% 25V	C404	0284634R	EL 4.7UF 50V
C24R	0893067R	CHIP 0.1UF +80-20% 25V	C406	0893027R	CHIP 0.1UF +-10% 25V
C251	0800049R	EL 100UF 16V	C407	0800082F	EL 1000UF 16V
C252	0893067R	CHIP 0.1UF +80-20% 25V	C408	0800049R	EL 100UF 16V
C253	0800032R	EL 33UF 16V	C409	0880046R	PF 0.015UF +-10% 50V
C254	0893067R	CHIP 0.1UF +80-20% 25V	C410	0800003R	EL 1UF 50V
C25B	0228034R	CD 15PF +-5% 50V	C411	0880062R	PF 0.22UF +-10% 50V
C25G	0228034R	CD 15PF +-5% 50V	C412	0893027R	CHIP 0.1UF +-10% 25V
C25R	0228034R	CD 15PF +-5% 50V	C424	0800049R	EL 100UF 16V
C261	0800046F	EL 47UF 100V	C425	0880062R	PF 0.22UF +-10% 50V
C262	024M021R	CD 0.01UF +-20% 500V	C426	0893073R	CHIP 1000P+80-20% 50V
C265	0800046F	EL 47UF 100V	C427	0800026R	EL 22UF 50V

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
C513	0893027R	CHIP 0.1UF +-10% 25V	C727	0254505R	EL 100UF 16V
C514	0893027R	CHIP 0.1UF +-10% 25V	C728	024M011R	PP 0.0022UF +-5% 250V
C515	0228058R	CD 150PF+-5% 50V	C729	0258123R	EL 4.7UF 100V
C516	0800049R	EL 100UF 16V	C730	0258123R	EL 4.7UF 100V
C517	0228042R	CD 33PF +-5% 50V	C731	0254519R	EL 100UF 25V
C518	0228042R	CD 33PF +-5% 50V	C732	0893079R	CHIP 0.01UF+80-20% 50V
C519	0893037R	CHIP 0.0033UF +-10% 50V	C733	0893079R	CHIP 0.01UF+80-20% 50V
C51A	0893079R	CHIP 0.01UF+80-20% 50V	C734	0893079R	CHIP 0.01UF+80-20% 50V
C520	0800005R	EL 2.2UF 50V	C736	0893079R	CHIP 0.01UF+80-20% 50V
C521	0299007R	PP 1800PF +-2% 100V	C737	AN01241F	PP 0.39UF +-5% 250V
C522	0299017R	PP 4700PF +-2% 100V	C738	AN01232F	PP 0.18UF +-5% 250V
C523	0228054R	CD 100PF +-5% 50V	C740	AN01238F	PP 0.33UF +-5% 250V
C528	0800049R	EL 100UF 16V	C741	AN01243F	PP 0.47UF +-5% 250V
C529	0800026R	EL 22UF 50V	C742	AN01243F	PP 0.47UF +-5% 250V
C530	0800049R	EL 100UF 16V	C743	0800012R	EL 4.7UF 50V
C531	0800018R	EL 10UF 50V	C744	0800042R	EL 47UF 25V
C601	024M004	PF 0.1UF +-5% 250V	C745	0800012R	EL 4.7UF 50V
C602	0893039R	CHIP 0.0047UF +-10% 50V	C746	0800042R	EL 47UF 25V
C603	0880057R	PF 0.1UF +-10% 50V	C747	0255525F	EL 10UF 250V
C604	0254520R	EL 220UF 25V	C748	0800035R	EL 33UF 50V
C605	0254509F	EL 1000UF 16V	C749	024M003F	PF 0.022UF +-5% 250V
C606	0258123R	EL 4.7UF 100V	C750	0244509F	CD 4700PF +-10% 500V
C607	0254523F	EL 1000UF 25V	C751	0244509F	CD 4700PF +-10% 500V
C608	0880066F	PF 0.47UF+-10% 50V	C752	0800049R	EL 100UF 16V
C609	0258123R	EL 4.7UF 100V	C753	0229003R	CD 330PF +-10% 50V
C60A	0880066F	PF 0.47UF+-10% 50V	C754	0800051R	EL 100UF 25V
C610	0800003R	EL 1UF 50V	C755	0893018R	CHIP 0.022UF +-10% 25V
C611	0893079R	CHIP 0.01UF+80-20% 50V	C756	0258107R	EL 4.7UF 50V
C701	0228770R	CD 470PF +-5% 50V	C757	0893018R	CHIP 0.022UF +-10% 25V
C702	0893013R	CHIP 0.22UF +-10% 16V	C758	024M101	EL 47UF 250V
C703	024M013R	EL 2.2UF 50V	C75A	0893018R	CHIP 0.022UF +-10% 25V
C704	0893027R	CHIP 0.1UF +-10% 25V	C761	0258109R	EL 22UF 50V
C705	0800049R	EL 100UF 16V	C762	0880057R	PF 0.1UF +-10% 50V
C706	0228766R	CD 330PF +-5% 50V	C764	0893079R	CHIP 0.01UF+80-20% 50V
C707	0228054R	CD 100PF +-5% 50V	C765	0800005R	EL 2.2UF 50V
C708	0893031R	CHIP 0.001UF +-10% 50V	C770	0228766R	CD 330PF +-5% 50V
C709	024M081F	PP 0.033UF +-10% 200V	C771	0893079R	CHIP 0.01UF+80-20% 50V
C710	0243507R	CD 330PF +-10% 500V	C79A	024M051F	PP 1500PF +-5% 1.2KV
C711	024M011R	PP 0.0022UF +-5% 250V	C7AA	024M041	PP 0.0022UF +-5% 630V
C712	0255522R	EL 2.2UF 250V	⚠ C901	024M171	PF 0.22UF +-20% 250V
C713	0255526F	EL 22UF 250V	⚠ C901A	024M171	PF 0.22UF +-20% 250V
C714	024M006F	PF 2.2UF +-5% 250V	⚠ C902	024M071F	CD 0.0047UF +-20% 250V
C715	0893027R	CHIP 0.1UF +-10% 25V	⚠ C902A	024M071F	CD 0.0047UF +-20% 250V
C716	0893027R	CHIP 0.1UF +-10% 25V	⚠ C903	024M071F	CD 0.0047UF +-20% 250V
C717	0255006R	EL 100UF 35V	⚠ C903A	024M071F	CD 0.0047UF +-20% 250V
C718	0255006R	EL 100UF 35V	C905	0299607F	PP 0.22UF +-10% 400V
C719	0800049R	EL 100UF 16V	⚠ C906	024M111	EL 220UF 400V
C71A	0893031R	CHIP 0.001UF +-10% 50V	C907	0244509R	CD 0.0033UF +10% 500V
C71B	0893031R	CHIP 0.001UF +-10% 50V	C908	0800051R	EL 100UF 25V
C720	0800012R	EL 4.7UF 50V	C909	0254520R	EL 220UF 25V
C721	0800058R	EL 220UF 16V	C90A	0244227R	CD 100PF +-10% 50V
C722	0800018R	EL 10UF 50V	C910	0228770R	CD 470PF +-5% 50V
C724	0255006R	EL 100UF 35V	C911	0228766R	CD 330PF +-5% 50V
C725	0244109R	CD 4700PF +-10% 50V	C912	0880044R	PF 0.01UF +-10% 50V
⚠ C726	0262418F	PP 0.0047UF +-5% 1800V	C913	0893067R	CHIP 0.1UF +80-20% 25V

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SYMBOL NO.	PART NO.	DESCRIPTION
C914	0880044R	PF 0.01UF +-10% 50V
C915	0893067R	CHIP 0.1UF +80-20% 25V
C916	0893067R	CHIP 0.1UF +80-20% 25V
C918	0893067R	CHIP 0.1UF +80-20% 25V
C921	0800018R	EL 10UF 50V
C922	0893031R	CHIP 0.001UF +-10% 50V
⚠ C923	024M071F	CD 0.0047UF +-20% 250V
⚠ C924	024M071F	CD 0.0047UF +-20% 250V
C925	0246846R	CD 47PF +-5% 500V
C926	0246846R	CD 47PF +-5% 500V
C927	0255529F	EL 100UF 250V
C928	0246846R	CD 47PF +-5% 500V
C929	0255511F	EL 220UF 160V
C930	0255006R	EL 100UF 35V
C931	0800043R	EL 47UF 35V
C932	0254523F	EL 1000UF 25V
C933	0800075F	EL 470UF 25V
C935	0254509F	EL 1000UF 16V
C936	0800042R	EL 47UF 25V
C937	0800074R	EL 470UF 16V
C938	0800075F	EL 470UF 25V
C939	0279695F	PF 0.22UF +-10% 100V
C940	0228766R	CD 330PF +-5% 50V
C941	024M005F	PF 0.22UF +-5% 250V
C943	0254519R	EL 100UF 25V
C944	0254509F	EL 1000UF 16V
C946	0254517R	EL 33UF 25V
C947	0893067R	CHIP 0.1UF +80-20% 25V
C948	0800049R	EL 100UF 16V
C949	0800049R	EL 100UF 16V
C950	0800073R	EL 470UF 10V
C951	0244141R	CD 0.01UF +-10% 50V
C95D	0228056R	CD 120PF +-5% 50V
R101	0195925R	CHIP 10K OHM +-5% 1/10W
R102	0195925R	CHIP 10K OHM +-5% 1/10W
R103	0195925R	CHIP 10K OHM +-5% 1/10W
R104	0195900R	CHIP 1K OHM +-5% 1/10W
R105	0700054M	CF 10K OHM +-5% 1/16W
R106	0195875R	CHIP 100 OHM +-5% 1/10W
R107	0195875R	CHIP 100 OHM +-5% 1/10W
R108	0700027M	CF 100 OHM +-5% 1/16W
R109	0195941R	CHIP 47K OHM +-5% 1/10W
R10A	0195925R	CHIP 10K OHM +-5% 1/10W
R10B	0195925R	CHIP 10K OHM +-5% 1/10W
R10C	0195925R	CHIP 10K OHM +-5% 1/10W
R10D	0195925R	CHIP 10K OHM +-5% 1/10W
R10E	0195925R	CHIP 10K OHM +-5% 1/10W
R10F	0195925R	CHIP 10K OHM +-5% 1/10W
R10G	0195925R	CHIP 10K OHM +-5% 1/10W
R110	0195916R	CHIP 4.7K OHM +-5% 1/10W
R111	0195912R	CHIP 3.3K OHM +-5% 1/10W

SYMBOL NO.	PART NO.	DESCRIPTION
R112	0195909R	CHIP 2.4K OHM +-5% 1/10W
R113	0195906R	CHIP 1.8K OHM +-5% 1/10W
R114	0195909R	CHIP 2.4K OHM +-5% 1/10W
R115	0195875R	CHIP 100 OHM +-5% 1/10W
R116	0195916R	CHIP 4.7K OHM +-5% 1/10W
R118	0195925R	CHIP 10K OHM +-5% 1/10W
R119	0119631M	MF 10K OHM +-1% 1/8W
R11A	0195925R	CHIP 10K OHM +-5% 1/10W
R11B	0195925R	CHIP 10K OHM +-5% 1/10W
R11C	0195925R	CHIP 10K OHM +-5% 1/10W
R11D	0195925R	CHIP 10K OHM +-5% 1/10W
R11E	0195925R	CHIP 10K OHM +-5% 1/10W
R11F	0195925R	CHIP 10K OHM +-5% 1/10W
R11G	0700054M	CF 10K OHM +-5% 1/16W
R11H	0700054M	CF 10K OHM +-5% 1/16W
R11J	0700054M	CF 10K OHM +-5% 1/16W
R11K	0700054M	CF 10K OHM +-5% 1/16W
R120	0700027M	CF 100 OHM +-5% 1/16W
R121	0700027M	CF 100 OHM +-5% 1/16W
R122	0700027M	CF 100 OHM +-5% 1/16W
R123	0700027M	CF 100 OHM +-5% 1/16W
R124	0700027M	CF 100 OHM +-5% 1/16W
R125	0700027M	CF 100 OHM +-5% 1/16W
R126	0195925R	CHIP 10K OHM +-5% 1/10W
R127	0195925R	CHIP 10K OHM +-5% 1/10W
R128	0700054M	CF 10K OHM +-5% 1/16W
R129	0195912R	CHIP 3.3K OHM +-5% 1/10W
R12A	0195925R	CHIP 10K OHM +-5% 1/10W
R12B	0195925R	CHIP 10K OHM +-5% 1/10W
R12C	0195925R	CHIP 10K OHM +-5% 1/10W
R12E	0195925R	CHIP 10K OHM +-5% 1/10W
R12G	0195925R	CHIP 10K OHM +-5% 1/10W
R12H	0195925R	CHIP 10K OHM +-5% 1/10W
R12J	0195925R	CHIP 10K OHM +-5% 1/10W
R12K	0195925R	CHIP 10K OHM +-5% 1/10W
R130	0700054M	CF 10K OHM +-5% 1/16W
R131	0195925R	CHIP 10K OHM +-5% 1/10W
R132	0195925R	CHIP 10K OHM +-5% 1/10W
R133	0195925R	CHIP 10K OHM +-5% 1/10W
R134	0195945R	CHIP 68K OHM +-5% 1/10W
R135	0195950R	CHIP 100K OHM +-5% 1/10W
R136	0700054M	CF 10K OHM +-5% 1/16W
R137	0700065M	CF 68K OHM +-5% 1/16W
R138	0195943R	CHIP 56K OHM +-5% 1/10W
R139	0195927R	CHIP 12K OHM +-5% 1/10W
R13A	0195925R	CHIP 10K OHM +-5% 1/10W
R13B	0195925R	CHIP 10K OHM +-5% 1/10W
R13C	0195925R	CHIP 10K OHM +-5% 1/10W
R13D	0195925R	CHIP 10K OHM +-5% 1/10W
R13E	0195925R	CHIP 10K OHM +-5% 1/10W
R13F	0195925R	CHIP 10K OHM +-5% 1/10W
R13G	0195925R	CHIP 10K OHM +-5% 1/10W
R13H	0195925R	CHIP 10K OHM +-5% 1/10W
R140	0195943R	CHIP 56K OHM +-5% 1/10W
R141	0195937R	CHIP 33K OHM +-5% 1/10W

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R150	0195875R	CHIP 100 OHM +-5% 1/10W	R304	0195887R	CHIP 330 OHM +-5% 1/10W
R151	0195875R	CHIP 100 OHM +-5% 1/10W	R305	0195887R	CHIP 330 OHM +-5% 1/10W
R201	0113701M	CF 10 OHM +-5% 1/2W	R306	0195887R	CHIP 330 OHM +-5% 1/10W
R202	0113774M	CF 10K OHM +-5% 1/2W	R307	0195895R	CHIP 680 OHM +-5% 1/10W
R211	0700027M	CF 100 OHM +-5% 1/16W	R308	0195895R	CHIP 680 OHM +-5% 1/10W
R212	0700036M	CF 470 OHM +-5% 1/16W	R309	0195895R	CHIP 680 OHM +-5% 1/10W
R213	0700047M	CF 3.3K OHM +-5% 1/16W	R310	0195875R	CHIP 100 OHM +-5% 1/10W
R214	0161481	VR 30K B	R311	0187062M	CF 750 OHM +-5% 1/16W
R21B	0187038M	CF 75 OHM +-5% 1/16W	R312	0100089M	CF 10K OHM +-5% 1/8W
R21G	0187038M	CF 75 OHM +-5% 1/16W	R313	0113711M	CF 27 OHM +-5% 1/2W
R21R	0187038M	CF 75 OHM +-5% 1/16W	R351	0700045M	CF 2.2K OHM +-5% 1/16W
R221	0188095M	CF 2.2 OHM +-5% 1/2W	R352	0700045M	CF 2.2K OHM +-5% 1/16W
R22B	0700045M	CF 2.2K OHM +-5% 1/16W	R401	0700036M	CF 470 OHM +-5% 1/16W
R22G	0700045M	CF 2.2K OHM +-5% 1/16W	R402	0195925R	CHIP 10K OHM +-5% 1/10W
R22R	0700045M	CF 2.2K OHM +-5% 1/16W	R403	0700054M	CF 10K OHM +-5% 1/16W
R231	0195925R	CHIP 10K OHM +-5% 1/10W	R404	0195891R	CHIP 470 OHM +-5% 1/10W
R232	0195907R	CHIP 2K OHM +-5% 1/10W	R407	0700054M	CF 10K OHM +-5% 1/16W
R233	0195925R	CHIP 10K OHM +-5% 1/10W	R408	0195891R	CHIP 470 OHM +-5% 1/10W
R234	0195906R	CHIP 1.8K OHM +-5% 1/10W	R409	0195891R	CHIP 470 OHM +-5% 1/10W
R23B	0195887R	CHIP 330 OHM +-5% 1/10W	R40T	2340361	THERMISTOR 112103-3
R23G	0195887R	CHIP 330 OHM +-5% 1/10W	R410	0195891R	CHIP 470 OHM +-5% 1/10W
R23R	0195887R	CHIP 330 OHM +-5% 1/10W	R411	0195891R	CHIP 470 OHM +-5% 1/10W
R24B	0700014M	CF 10 OHM +-5% 1/16W	R413	0119637M	MF 18K OHM +-1% 1/8W
R24G	0700014M	CF 10 OHM +-5% 1/16W	R414	011M013M	MG 110K OHM +-5% 1/4W
R24R	0700014M	CF 10 OHM +-5% 1/16W	R415	0119631M	MF 10K OHM +-1% 1/8W
R251	0113725M	CF 100 OHM +-5% 1/2W	R416	0700049M	CF 4.7K OHM +-5% 1/16W
R25B	0700023M	CF 47 OHM +-5% 1/16W	R417	0100125M	CF 330K OHM +-5% 1/8W
R25G	0700023M	CF 47 OHM +-5% 1/16W	R418	011M022M	MF 75K OHM +-1% 1/4W
R25R	0700023M	CF 47 OHM +-5% 1/16W	R433	0119647M	MF 47K OHM +-1% 1/8W
R261	011M001M	FR 3.3 OHM +-5% 1/2W	R434	0195875R	CHIP 100 OHM +-5% 1/10W
R26B	0100112M	CF 91K OHM +-5% 1/8W	R435	0195925R	CHIP 10K OHM +-5% 1/10W
R26G	0100112M	CF 91K OHM +-5% 1/8W	R440	0195937R	CHIP 33K OHM +-5% 1/10W
R26R	0100112M	CF 91K OHM +-5% 1/8W	R519	0195941R	CHIP 47K OHM +-5% 1/10W
R27B	0161481	VR 30K B	R520	0100121M	CF 200K OHM +-5% 1/8W
R27G	0161481	VR 30K B	R521	0195900R	CHIP 1K OHM +-5% 1/10W
R27R	0161481	VR 30K B	R522	0100057M	CF 470 OHM +-5% 1/8W
R281	0700064M	CF 56K OHM +-5% 1/16W	R523	0700048M	CF 3.9K OHM +-5% 1/16W
R282	0113771M	CF 7.5K OHM +-5% 1/2W	R524	0195904R	CHIP 1.5K OHM +-5% 1/10W
R28B	0700027M	CF 100 OHM +-5% 1/16W	R525	0119641M	MF 27K OHM +-1% 1/8W
R28G	0700027M	CF 100 OHM +-5% 1/16W	R526	0119623M	MF 4.7K OHM +-1% 1/8W
R28R	0700027M	CF 100 OHM +-5% 1/16W	R527	0119615M	MF 2.2K OHM +-1% 1/8W
R29B	0113721M	CF 68 OHM +-5% 1/2W	R528	0187084M	CF 6.2K OHM +-5% 1/16W
R29G	0113721M	CF 68 OHM +-5% 1/2W	R529	0195916R	CHIP 4.7K OHM +-5% 1/10W
R29R	0113721M	CF 68 OHM +-5% 1/2W	R52A	0195872R	CHIP 82 OHM +-5% 1/10W
R2AB	0700061M	CF 33K OHM +-5% 1/16W	R530	0700041M	CF 1K OHM +-5% 1/16W
R2AG	0700061M	CF 33K OHM +-5% 1/16W	R531	0195906R	CHIP 1.8K OHM +-5% 1/10W
R2AR	0700064M	CF 56K OHM +-5% 1/16W	R532	0150134	VR 1K B
R2BB	0195947R	CHIP 82K OHM +-5% 1/10W	R536	0119627M	MF 6.8K OHM +-1% 1/8W
R2BG	0195947R	CHIP 82K OHM +-5% 1/10W	R537	0119634M	MF 13K OHM +-1% 1/8W
R2BR	0195947R	CHIP 82K OHM +-5% 1/10W	R538	0195922R	CHIP 8.2K OHM +-5% 1/10W
R2CB	0195875R	CHIP 100 OHM +-5% 1/10W	R539	0700027M	CF 100 OHM +-5% 1/16W
R2CG	0195875R	CHIP 100 OHM +-5% 1/10W	R601	0100089M	CF 10K OHM +-5% 1/8W
R2CR	0195875R	CHIP 100 OHM +-5% 1/10W	R602	0195900R	CHIP 1K OHM +-5% 1/10W
R302	0700027M	CF 100 OHM +-5% 1/16W	R603	0195908R	CHIP 2.2K OHM +-5% 1/10W
R303	0187074M	CF 2.4K OHM +-5% 1/16W	R604	0195925R	CHIP 10K OHM +-5% 1/10W

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R605	0195925R	CHIP 10K OHM +-5% 1/10W	R72B	0195933R	CHIP 22K OHM +-5% 1/10W
R606	011M007S	MF 2.2 OHM +-5% 2W	R72C	0195933R	CHIP 22K OHM +-5% 1/10W
R608	0150284	VR 2K B	R72E	0195941R	CHIP 47K OHM +-5% 1/10W
R609	0700032M	CF 220 OHM +-5% 1/16W	R72G	0100077M	CF 3.3K OHM +-5% 1/8W
R60J	0700044M	CF 1.8K OHM +-5% 1/16W	R72H	0100077M	CF 3.3K OHM +-5% 1/8W
R60K	0195884R	CHIP 240 OHM +-5% 1/10W	R72I	0119838G	FR 0.5 OHM +-5% 1/4W
R60T	2340361	THERMISTOR 112103-3	R72J	0119838G	FR 0.5 OHM +-5% 1/4W
R610	0195918R	CHIP 5.6K OHM +-5% 1/10W	R72L	011M151S	MF 100 OHM +-5% 2W
R611	011M071S	MF 0.91 OHM +-5% 1W	R72M	011M151S	MF 100 OHM +-5% 2W
R612	0195908R	CHIP 2.2K OHM +-5% 1/10W	R730	0700049R	CF 4.7K OHM +-5% 1/16W
R613	011M008S	MF 0.51 OHM +-5% 2W	R731	0195900R	CHIP 1K OHM +-5% 1/10W
R614	0195908R	CHIP 2.2K OHM +-5% 1/10W	R732	0195900R	CHIP 1K OHM +-5% 1/10W
R615	0195893R	CHIP 560 OHM +-5% 1/10W	R733	011M021S	MF 68 OHM +-5% 5W
R616	0113737M	CF 330 OHM +-5% 1/2W	R735	0195925R	CHIP 10K OHM +-5% 1/10W
R617	0188095M	CF 2.2 OHM +-5% 1/2W	R736	0113733M	CF 220 OHM +-5% 1/2W
R618	0100057M	CF 470 OHM +-5% 1/8W	R737	0113717M	CF 47 OHM +-5% 1/2W
R619	0100073M	CF 2.2K OHM +-5% 1/8W	R738	011M101S	MF 0.68 OHM +-5% 3W
R620	0195943R	CHIP 56K OHM +-5% 1/10W	R739	011M101S	MF 0.68 OHM +-5% 3W
R621	0188091M	CF 1 OHM +-5% 1/2W	R73A	0100117M	CF 150K OHM +-5% 1/8W
R6AT	2340361	THERMISTOR 112103-3	R73B	0100117M	CF 150K OHM +-5% 1/8W
R701	0195947R	CHIP 82K OHM +-5% 1/10W	R73C	0100117M	CF 150K OHM +-5% 1/8W
R702	011M014M	MG 1M OHM +-5% 1/4W	R73E	0100117M	CF 150K OHM +-5% 1/8W
R703	0195947R	CHIP 82K OHM +-5% 1/10W	R740	0113717M	CF 47 OHM +-5% 1/2W
R704	0195918R	CHIP 5.6K OHM +-5% 1/10W	R743	0110108S	MF 30 OHM +-5% 1W
R705	0195925R	CHIP 10K OHM +-5% 1/10W	R744	011M111S	MF 220 OHM +-5% 3W
R706	0195918R	CHIP 5.6K OHM +-5% 1/10W	R745	0110121S	MF 100 OHM +-5% 1W
R707	0195908R	CHIP 2.2K OHM +-5% 1/10W	R746	011M151S	MF 100 OHM +-5% 2W
R708	0195916R	CHIP 4.7K OHM +-5% 1/10W	R747	0110209S	MF 33 OHM +-5% 2W
R709	011M020M	FR 47 OHM +-5% 1/2W	R748	011M014M	MG 1M OHM +-5% 1/4W
R70A	0195933R	CHIP 22K OHM +-5% 1/10W	R749	0100065M	CF 1K OHM +-5% 1/8W
R70B	0195933R	CHIP 22K OHM +-5% 1/10W	R750	0195947R	CHIP 82K OHM +-5% 1/10W
R70C	0195933R	CHIP 22K OHM +-5% 1/10W	R751	0195931R	CHIP 18K OHM +-5% 1/10W
R70E	0195933R	CHIP 22K OHM +-5% 1/10W	R752	0195916R	CHIP 4.7K OHM +-5% 1/10W
R70V	0160497	VR 5K B	R753	0195943R	CHIP 56K OHM +-5% 1/10W
R710	0195925R	CHIP 10K OHM +-5% 1/10W	R754	0179534M	MG 470K OHM +-5% 1/2W
R711	0195941R	CHIP 47K OHM +-5% 1/10W	R755	0150308	VR 50K B
R712	0195900R	CHIP 1K OHM +-5% 1/10W	R756	0100105M	CF 47K OHM +-5% 1/8W
R713	0195948R	CHIP 91K OHM +-5% 1/10W	R757	0100111M	CF 82K OHM +-5% 1/8W
R715	0195920R	CHIP 6.8K OHM +-5% 1/10W	R758	011M003M	FR 10 OHM +-5% 1/2W
R716	0150287	VR 10K B	R761	0195947R	CHIP 82K OHM +-5% 1/10W
R717	0195947R	CHIP 82K OHM +-5% 1/10W	R762	0195906R	CHIP 1.8K OHM +-5% 1/10W
R718	0195916R	CHIP 4.7K OHM +-5% 1/10W	R763	011M012M	MG 3M OHM +-5% 1/4W
R719	0100113M	CF 100K OHM +-5% 1/8W	R764	0113798M	CF 91K OHM +-5% 1/2W
R71A	0195912R	CHIP 3.3K OHM +-5% 1/10W	R765	0113798M	CF 91K OHM +-5% 1/2W
R71B	0195912R	CHIP 3.3K OHM +-5% 1/10W	R766	011M020M	FR 47 OHM +-5% 1/2W
R71C	0195912R	CHIP 3.3K OHM +-5% 1/10W	R767	0100112M	CF 91K OHM +-5% 1/8W
R71E	0195912R	CHIP 3.3K OHM +-5% 1/10W	R768	0179604M	MG 150K+-1% 1/8W
R720	0195925R	CHIP 10K OHM +-5% 1/10W	R769	0100041M	CF 100 OHM +-5% 1/8W
R721	011M002M	FR 1 OHM +-5% 1/2W	R770	0195900R	CHIP 1K OHM +-5% 1/10W
R722	0700054M	CF 10K OHM +-5% 1/16W	R771	0700041M	CF 1K OHM +-5% 1/16W
R726	0119631M	MF 10K OHM +-1% 1/8W ⚠	R772	0119613M	MF 1.8K +-1% 1/8W
R727	0119635M	MF 15K OHM +-1% 1/8W ⚠	R773	0150134	VR 1K B
R728	0700027M	CF 100 OHM +-5% 1/16W ⚠	R774	0119632M	MF 11K OHM +-1% 1/8W
R729	0195925R	CHIP 10K OHM +-5% 1/10W	R775	0195947R	CHIP 82K OHM +-5% 1/10W
R72A	0195933R	CHIP 22K OHM +-5% 1/10W	R776	0195943R	CHIP 56K OHM +-5% 1/10W

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R777	0700054M	CF 10K OHM +-5% 1/16W
R778	0195916R	CHIP 4.7K OHM +-5% 1/10W
R779	0195908R	CHIP 2.2K OHM +-5% 1/10W
R780	0195925R	CHIP 10K OHM +-5% 1/10W
R781	0195916R	CHIP 4.7K OHM +-5% 1/10W
R782	0700023M	CF 47 OHM +-5% 1/16W
R783	0700054M	CF 10K OHM +-5% 1/16W
R784	011M010S	MF 0.51 OHM +-5% 3W
⚠ R785	0119633M	MF 12K OHM +-1% 1/8W
⚠ R786	0119627M	MF 6.8K OHM +-1% 1/8W
⚠ R787	0119632M	MF 11K OHM +-1% 1/8W
R788	011M003M	FR 10 OHM +-5% 1/2W
R789	0700054M	CF 10K OHM +-5% 1/16W
R790	0700041M	CF 1K OHM +-5% 1/16W
R791	0100072M	CF 2K +-5% 1/8W
R792	0100072M	CF 2K +-5% 1/8W
R793	0195947R	CHIP 82K OHM +-5% 1/10W
R794	0195900R	CHIP 1K OHM +-5% 1/10W
R795	0195904R	CHIP 1.5K OHM +-5% 1/10W
R796	0195912R	CHIP 3.3K OHM +-5% 1/10W
R797	0150306	VR 20K B
R798	0195911R	CHIP 3K OHM +-5% 1/10W
R799	0195877R	CHIP 120 OHM +-5% 1/10W
R79E	0195911R	CHIP 3K OHM +-5% 1/10W
R79F	0195911R	CHIP 3K OHM +-5% 1/10W
R7AA	011M081	WW 110 OHM +-5% 15W
R901	0179541M	MG 820K OHM +-5% 1/2W
R902	0179542M	MG 1000K OHM +-5% 1/2W
R903	0179541M	MG 820K OHM +-5% 1/2W
R904	0179540M	MG 560K OHM +-5% 1/2W
R905	AT00572S	MF 100K OHM +-5% 2W
R906	0113701M	CF 10 OHM +-5% 1/2W
⚠ R907	011M061S	MF 0.56 OHM +-5% 3W
R908	0100043M	CF 120 OHM +-5% 1/8W
R909	0195864R	CHIP 39 OHM +-5% 1/10W
⚠ R90T	CJ00111	ZPK68BL9R0B
R910	0100081M	CF 4.7K OHM +-5% 1/8W
R911	0100033M	CF 47 OHM +-5% 1/8W
R912	0100071M	CF 1.8K OHM +-5% 1/8W
R913	0195905R	CHIP 1.6K OHM +-5% 1/10W
R915	0195900R	CHIP 1K OHM +-5% 1/10W
R916	0700041M	CF 1K OHM +-5% 1/16W
R917	0700049M	CF 4.7K OHM +-5% 1/16W
R918	0195916R	CHIP 4.7K OHM +-5% 1/10W
R919	0100073M	CF 2.2K OHM +-5% 1/8W
R91T	271M002F	NTC 10 OHM,N10SP010L
R920	0195908R	CHIP 2.2K OHM +-5% 1/10W
R921	0195893R	CHIP 560 OHM +-5% 1/10W
R922	0195900R	CHIP 1K OHM +-5% 1/10W
R923	0179534M	MG 470K OHM +-5% 1/2W
R924	0195900R	CHIP 1K OHM +-5% 1/10W
R925	0195914R	CHIP 3.9K OHM +-5% 1/10W
R926	0100035M	CF 56 OHM +-5% 1/8W
R927	0195925R	CHIP 10K OHM +-5% 1/10W
R928	0114064M	CF 91 OHM +-5% 1/4W
R929	0195250R	CHIP 0 OHM 1/16W
R92T	2340361	THERMISTOR 112103-3
R933	0150133	VR 500 B
R934	0195900R	CHIP 1K OHM +-5% 1/10W
R935	0113793M	CF 56K OHM +-5% 1/2W
R936	0113796M	CF 75K OHM +-5% 1/2W
R937	011M018M	FR 100 OHM +-5% 1/4W
R938	0195875R	CHIP 100 OHM +-5% 1/10W
R939	0195875R	CHIP 100 OHM +-5% 1/10W
R940	0195900R	CHIP 1K OHM +-5% 1/10W
R941	0100095M	CF 18K OHM +-5% 1/8W
R942	0100065M	CF 1K OHM +-5% 1/8W
R943	0100112M	CF 91K OHM +-5% 1/8W
R945	0114143M	CF 330 OHM +-5% 1/4W
R946	0114143M	CF 330 OHM +-5% 1/4W
R947	0195891R	CHIP 470 OHM +-5% 1/10W
R948	0114161M	CF 1K OHM +-5% 1/4W
R949	0114161M	CF 1K OHM +-5% 1/4W
R950	0195950R	CHIP 100K OHM +-5% 1/10W
R952	0700054M	CF 10K OHM +-5% 1/16W
R953	AT00449S	MF 2.7 OHM +-5% 2W
R954	0195875R	CHIP 100 OHM +-5% 1/10W
R955	0114143M	CF 330 OHM +-5% 1/4W
R956	0195925R	CHIP 10K OHM +-5% 1/10W
R957	0195925R	CHIP 10K OHM +-5% 1/10W
R958	0700049M	CF 4.7K OHM +-5% 1/16W
R959	0195900R	CHIP 1K OHM +-5% 1/10W
R960	0119607M	MF 1K OHM +-1% 1/8W
R961	0100112M	CF 91K OHM +-5% 1/8W
R962	0100112M	CF 91K OHM +-5% 1/8W
R963	0110137S	MF 470 OHM +-5% 1W
R964	AT00278S	MF 1 OHM +-5% 3W
R965	0196914R	CHIP 12K OHM +-1% 1/10W
I101	236M101	IC MASK 1654BD142
I102	236M013	IC 24LC41A(MICROCHIP)
I103	2915331	IC HD74HC86P
I201	CP04391U	M52737SP
I202	236M001	IC LM2405
I301	236M002	IC OSD M35045-097SP
I403	236M004	IC LM324N
I501	236M006	IC TDA9102C(SGS)
I502	CP03391	IC 74HC4538N
I601	236M008	IC TDA8172(SGS)
I701	CP02171	IC LM358N
I702	2364671	IC LM339N
I901	236M041	IC UC3842A (SGS)
⚠ I902	236M071	IC 4N35 (FAGOR)
I904	236M010R	IC XC62AP5002LH (TOREX)
I905	236M009	IC KA7812(SAMSUNG)
Q101	2325721M	2SC1740S TQ S

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
Q281	231M001R	TRS BF420 TPE2(TOSHIBA)VT	Q913	2329183T	TRS. 2SA1015 (GR TPT)
Q401	2329183T	TRS. 2SA1015 (GR TPT)	Q914	231M003R	TRS BF421 TPE2(TOSHIBA)
Q402	2325721M	2SC1740S TQ S			
Q403	2325721M	2SC1740S TQ S			
Q504	2325721M	2SC1740S TQ S	D101	2337341M	1SS270A TA
Q505	2320643M	2SC1213PC TZ	D10Z	2331798M	HZ5C2 TAPE
Q506	2320632M	2SA673PC TZ	D11Z	2331798M	HZ5C2 TAPE
Q507	2329183T	TRS. 2SA1015 (GR TPT)	D12Z	2331798M	HZ5C2 TAPE
Q601	2325721M	2SC1740S TQ S	D13Z	2331798M	HZ5C2 TAPE
Q602	2325721M	2SC1740S TQ S	D201	239M001M	DIO 1N4004 400V/1A AT
Q603	2320643M	2SC1213PC TZ	D23B	2337341M	1SS270A TA
Q604	2320632M	2SA673PC TZ	D23G	2337341M	1SS270A TA
Q605	2325721M	2SC1740S TQ S	D23R	2337341M	1SS270A TA
Q701	2325721M	2SC1740S TQ S	D25Z	2339892M	HZS15C2TA
Q702	231M012	TRS,2SJ449 (NEC)	D26B	2337341M	1SS270A TA
Q703	2329183T	TRS. 2SA1015 (GR TPT)	D26G	2337341M	1SS270A TA
Q704	2325721M	2SC1740S TQ S	D26R	2337341M	1SS270A TA
Q705	2320643M	2SC1213PC TZ	D30Z	2331798M	HZ5C2 TAPE
Q706	2320632M	2SA673PC TZ	D401	2337341M	1SS270A TA
Q707	2312173	2SD2375 (Q)	D51Z	2331798M	HZ5C2 TAPE
Q708	2315931	TRS-2SB1548A-P	D601	2337341M	1SS270A TA
Q709	2329183T	TRS. 2SA1015 (GR TPT)	D602	2337341M	1SS270A TA
Q710	2325721M	2SC1740S TQ S	D603	233T151M	DIO 11EFS2
Q711	2329183T	TRS. 2SA1015 (GR TPT)	D604	2337341M	1SS270A TA
Q713	231M008R	TRS 2SK1272(NEC)VT	D605	239M001M	DIO 1N4004 400V/1A AT
⚠ Q714	CF01551F	2SC5411	D60Z	2339892M	HZS15C2TA
Q715	2325721M	2SC1740S TQ S	D701	239M007	DIO 31DF4 400V/3A N-1
Q716	2325721M	2SC1740S TQ S	D702	233T151M	DIO 11EFS2
Q717	2325721M	2SC1740S TQ S	D705	233T151M	DIO 11EFS2
Q719	2325721M	2SC1740S TQ S	D706	233T151M	DIO 11EFS2
Q720	231M021	TRS-IRF630 (SAMSUNG)	D707	233T151M	DIO 11EFS2
Q721	231M021	TRS-IRF630 (SAMSUNG)	D709	2337341M	1SS270A TA
Q722	231M021	TRS-IRF630 (SAMSUNG)	D70Z	2331798M	HZ5C2 TAPE
Q724	231M021	TRS-IRF630 (SAMSUNG)	D710	2337341M	1SS270A TA
Q725	2329183T	TRS. 2SA1015 (GR TPT)	D711	2337341M	1SS270A TA
Q726	231M003R	TRS BF421 TPE2(TOSHIBA)	D712	2337341M	1SS270A TA
Q727	231M010R	TRS KSP44(SAMSUNG)VT	D714	2339551M	DIODE EK14(V1) SI 5MA 45V
Q728	2325721M	2SC1740S TQ S	D715	CH00661	ST-5TUZ47C
Q729	2320632M	2SA673PC TZ	D716	2339551M	DIODE EK14(V1) SI 5MA 45V
Q730	2320643M	2SC1213PC TZ	D717	233T151M	DIO 11EFS2
Q731	CF00921F	FS7KM-18A(MITSUMISHI)	D718	233T151M	DIO 11EFS2
Q732	2329183T	TRS. 2SA1015 (GR TPT)	D719	239M007	DIO 31DF4 400V/3A N-1
Q733	2329183T	TRS. 2SA1015 (GR TPT)	D71Z	2331842M	HZ12A2 TA
Q901	231M041	TRS.2SK2545(TOSHIBA)	D720	239M007	DIO 31DF4 400V/3A N-1
Q902	2325721M	2SC1740S TQ S	D721	2345861	DIODE RU4C
Q903	2329183T	TRS. 2SA1015 (GR TPT)	D722	2345861	DIODE RU4C
Q904	2325721M	2SC1740S TQ S	D723	2337341M	1SS270A TA
Q905	2325721M	2SC1740S TQ S	D724	2337341M	1SS270A TA
Q906	236M061R	IC KA431AZ (SAMSUNG)	D725	2337341M	1SS270A TA
Q907	2325721M	2SC1740S TQ S	D726	239M004M	DIO UF4007 1KV/1A GI AT
Q908	231M011R	TRS 2SA1020-Y(TOSHIBA)VT	D728	2337341M	1SS270A TA
Q909	2325721M	2SC1740S TQ S	D729	2337341M	1SS270A TA
Q910	231M011R	TRS 2SA1020-Y(TOSHIBA)VT	D727	2337341M	1SS270A TA
Q911	2325721M	2SC1740S TQ S	D728	2337341M	1SS270A TA
Q912	2325721M	2SC1740S TQ S	D729	2337341M	1SS270A TA

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SYMBOL NO.	PART NO.	DESCRIPTION
D72Z	2331798M	HZ5C2 TAPE
D730	2337341M	1SS270A TA
D731	2337341M	1SS270A TA
D732	2337341M	1SS270A TA
D733	239M031M	DIO EGP10G 400V/1A AT(FAGOR)
D73A	2337341M	1SS270A TA
⚠ D74Z	2331798M	HZ5C2 TAPE
D79Z	2331798M	HZ5C2 TAPE
D901	239M005	DIO 1N5406 600V/3A FAGOR
D902	239M005	DIO 1N5406 600V/3A FAGOR
D903	239M005	DIO 1N5406 600V/3A FAGOR
D904	239M005	DIO 1N5406 600V/3A FAGOR
D905	239M004	DIO UF4007 1KV/1A GI
D906	239M051M	DIO 1N4007 1KV/1A AT(FAGOR)
D907	239M051M	DIO 1N4007 1KV/1A AT(FAGOR)
D908	2337341M	1SS270A TA
D909	233T151M	DIO 11EFS2
D90A	2337341M	1SS270A TA
D90Z	2339922M	DIO-HZS20-2 TA
D910	233T151M	DIO 11EFS2
D911	2337341M	1SS270A TA
D912	2337341M	1SS270A TA
D913	239M003	DIO FUF5407 800V/3A FAGOR
D914	239M003	DIO FUF5407 800V/3A FAGOR
D915	239M003	DIO FUF5407 800V/3A FAGOR
D916	239M002	DIO FUF5404 400V/3A FAGOR
D917	239M006	DIO 31DF2 200V/3A N-1
D918	239M006	DIO 31DF2 200V/3A N-1
D919	239M002	DIO FUF5404 400V/3A FAGOR
D91Z	2331798M	HZ5C2 TAPE
D920	2337341M	1SS270A TA
D921	239M001M	DIO 1N4004 400V/1A AT
D922	2337341M	1SS270A TA
D923	239M012	DIO LED G/R 5*7MM 3P,F
D924	2337341M	1SS270A TA
D925	2337341M	1SS270A TA
D92D	2337341M	1SS270A TA
K101	9371902	0.6 ~ SOLDER WIRE
K102	9371902	0.6 ~ SOLDER WIRE
K103	9371902	0.6 ~ SOLDER WIRE
K104	9371902	0.6 ~ SOLDER WIRE
K105	9371902	0.6 ~ SOLDER WIRE
K106	0195250R	CHIP 0 OHM 1/16W
K107	0195250R	CHIP 0 OHM 1/16W
K108	9371902	0.6 ~ SOLDER WIRE
K109	9371902	0.6 ~ SOLDER WIRE
K10A	0195250R	CHIP 0 OHM 1/16W
K10C	0195250R	CHIP 0 OHM 1/16W
K110	9371902	0.6 ~ SOLDER WIRE
K111	9371902	0.6 ~ SOLDER WIRE
K112	9371902	0.6 ~ SOLDER WIRE
K113	9371902	0.6 ~ SOLDER WIRE
K114	9371902	0.6 ~ SOLDER WIRE
K115	9371902	0.6 ~ SOLDER WIRE
K116	9371902	0.6 ~ SOLDER WIRE
K117	9371902	0.6 ~ SOLDER WIRE
K118	9371902	0.6 ~ SOLDER WIRE
K119	9371902	0.6 ~ SOLDER WIRE
K120	0195250R	CHIP 0 OHM 1/16W
K121	0195250R	CHIP 0 OHM 1/16W
K122	9371902	0.6 ~ SOLDER WIRE
K123	9371902	0.6 ~ SOLDER WIRE
K124	9371902	0.6 ~ SOLDER WIRE
K125	9371902	0.6 ~ SOLDER WIRE
K126	9371902	0.6 ~ SOLDER WIRE
K127	9371902	0.6 ~ SOLDER WIRE
K128	9371902	0.6 ~ SOLDER WIRE
K129	9371902	0.6 ~ SOLDER WIRE
K130	9371902	0.6 ~ SOLDER WIRE
K131	9371902	0.6 ~ SOLDER WIRE
K132	9371902	0.6 ~ SOLDER WIRE
K133	9371902	0.6 ~ SOLDER WIRE
K134	9371902	0.6 ~ SOLDER WIRE
K135	9371902	0.6 ~ SOLDER WIRE
K136	9371902	0.6 ~ SOLDER WIRE
K137	9371902	0.6 ~ SOLDER WIRE
K138	9371902	0.6 ~ SOLDER WIRE
K139	9371902	0.6 ~ SOLDER WIRE
K140	9371902	0.6 ~ SOLDER WIRE
K141	9371902	0.6 ~ SOLDER WIRE
K142	0195250R	CHIP 0 OHM 1/16W
K143	9371902	0.6 ~ SOLDER WIRE
K144	9371902	0.6 ~ SOLDER WIRE
K146	9371902	0.6 ~ SOLDER WIRE
K147	0195250R	CHIP 0 OHM 1/16W
K148	0195250R	CHIP 0 OHM 1/16W
K149	9371902	0.6 ~ SOLDER WIRE
K201	9371902	0.6 ~ SOLDER WIRE
K202	9371902	0.6 ~ SOLDER WIRE
K203	9371902	0.6 ~ SOLDER WIRE
K204	9371902	0.6 ~ SOLDER WIRE
K205	9371902	0.6 ~ SOLDER WIRE
K206	9371902	0.6 ~ SOLDER WIRE
K207	9371902	0.6 ~ SOLDER WIRE
K208	9371902	0.6 ~ SOLDER WIRE
K209	9371902	0.6 ~ SOLDER WIRE
K20B	0195250R	CHIP 0 OHM 1/16W
K20G	0195250R	CHIP 0 OHM 1/16W
K20R	0195250R	CHIP 0 OHM 1/16W
K210	9371902	0.6 ~ SOLDER WIRE
K211	9371902	0.6 ~ SOLDER WIRE
K212	9371902	0.6 ~ SOLDER WIRE
K213	9371902	0.6 ~ SOLDER WIRE
K214	9371902	0.6 ~ SOLDER WIRE
K215	9371902	0.6 ~ SOLDER WIRE
K216	9371902	0.6 ~ SOLDER WIRE
K217	9371902	0.6 ~ SOLDER WIRE
K218	9371902	0.6 ~ SOLDER WIRE

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
K219	9371902	0.6 ~ SOLDER WIRE	K513	9371902	0.6 ~ SOLDER WIRE
K21B	9371902	0.6 ~ SOLDER WIRE	K514	9371902	0.6 ~ SOLDER WIRE
K21G	9371902	0.6 ~ SOLDER WIRE	K515	9371902	0.6 ~ SOLDER WIRE
K21R	9371902	0.6 ~ SOLDER WIRE	K516	0195250R	CHIP 0 OHM 1/16W
K220	9371902	0.6 ~ SOLDER WIRE	K517	9371902	0.6 ~ SOLDER WIRE
K221	9371902	0.6 ~ SOLDER WIRE	K518	9371902	0.6 ~ SOLDER WIRE
K222	9371902	0.6 ~ SOLDER WIRE	K519	9371902	0.6 ~ SOLDER WIRE
K22B	9371902	0.6 ~ SOLDER WIRE	K520	9371902	0.6 ~ SOLDER WIRE
K22G	9371902	0.6 ~ SOLDER WIRE	K521	9371902	0.6 ~ SOLDER WIRE
K22R	9371902	0.6 ~ SOLDER WIRE	K522	9371902	0.6 ~ SOLDER WIRE
K23B	9371902	0.6 ~ SOLDER WIRE	K523	0195250R	CHIP 0 OHM 1/16W
K23G	9371902	0.6 ~ SOLDER WIRE	K524	9371902	0.6 ~ SOLDER WIRE
K23R	9371902	0.6 ~ SOLDER WIRE	K525	9371902	0.6 ~ SOLDER WIRE
K24B	9371902	0.6 ~ SOLDER WIRE	K526	9371902	0.6 ~ SOLDER WIRE
K24G	9371902	0.6 ~ SOLDER WIRE	K527	9371902	0.6 ~ SOLDER WIRE
K24R	9371902	0.6 ~ SOLDER WIRE	K528	9371902	0.6 ~ SOLDER WIRE
K261	9371902	0.6 ~ SOLDER WIRE	K529	9371902	0.6 ~ SOLDER WIRE
K262	9371902	0.6 ~ SOLDER WIRE	K53D	9371902	0.6 ~ SOLDER WIRE
K263	9371902	0.6 ~ SOLDER WIRE	K601	9371902	0.6 ~ SOLDER WIRE
K264	9371902	0.6 ~ SOLDER WIRE	K602	9371902	0.6 ~ SOLDER WIRE
K265	9371902	0.6 ~ SOLDER WIRE	K603	9371902	0.6 ~ SOLDER WIRE
K266	9371902	0.6 ~ SOLDER WIRE	K604	9371902	0.6 ~ SOLDER WIRE
K267	9371902	0.6 ~ SOLDER WIRE	K605	9371902	0.6 ~ SOLDER WIRE
K268	9371902	0.6 ~ SOLDER WIRE	K606	9371902	0.6 ~ SOLDER WIRE
K269	9371902	0.6 ~ SOLDER WIRE	K607	9371902	0.6 ~ SOLDER WIRE
K26B	9371902	0.6 ~ SOLDER WIRE	K608	9371902	0.6 ~ SOLDER WIRE
K26G	9371902	0.6 ~ SOLDER WIRE	K609	9371902	0.6 ~ SOLDER WIRE
K26R	9371902	0.6 ~ SOLDER WIRE	K610	9371902	0.6 ~ SOLDER WIRE
K270	9371902	0.6 ~ SOLDER WIRE	K611	9371902	0.6 ~ SOLDER WIRE
K27B	9371902	0.6 ~ SOLDER WIRE	K612	9371902	0.6 ~ SOLDER WIRE
K27G	9371902	0.6 ~ SOLDER WIRE	K613	9371902	0.6 ~ SOLDER WIRE
K27R	9371902	0.6 ~ SOLDER WIRE	K614	9371902	0.6 ~ SOLDER WIRE
K281	9371902	0.6 ~ SOLDER WIRE	K61B	9371902	0.6 ~ SOLDER WIRE
K301	9371902	0.6 ~ SOLDER WIRE	K62B	9371902	0.6 ~ SOLDER WIRE
K302	9371902	0.6 ~ SOLDER WIRE	K702	9371902	0.6 ~ SOLDER WIRE
K303	9371902	0.6 ~ SOLDER WIRE	K704	9371902	0.6 ~ SOLDER WIRE
K304	0195250R	CHIP 0 OHM 1/16W	K705	9371902	0.6 ~ SOLDER WIRE
K305	0195250R	CHIP 0 OHM 1/16W	K706	9371902	0.6 ~ SOLDER WIRE
K314	9371902	0.6 ~ SOLDER WIRE	K707	9371902	0.6 ~ SOLDER WIRE
K315	9371902	0.6 ~ SOLDER WIRE	K708	9371902	0.6 ~ SOLDER WIRE
K316	9371902	0.6 ~ SOLDER WIRE	K709	9371902	0.6 ~ SOLDER WIRE
K319	9371902	0.6 ~ SOLDER WIRE	K711	9371902	0.6 ~ SOLDER WIRE
K321	9371902	0.6 ~ SOLDER WIRE	K712	9371902	0.6 ~ SOLDER WIRE
K501	0195250R	CHIP 0 OHM 1/16W	K713	9371902	0.6 ~ SOLDER WIRE
K502	9371902	0.6 ~ SOLDER WIRE	K714	9371902	0.6 ~ SOLDER WIRE
K503	9371902	0.6 ~ SOLDER WIRE	K715	9371902	0.6 ~ SOLDER WIRE
K504	9371902	0.6 ~ SOLDER WIRE	K716	9371902	0.6 ~ SOLDER WIRE
K505	9371902	0.6 ~ SOLDER WIRE	K717	9371902	0.6 ~ SOLDER WIRE
K506	9371902	0.6 ~ SOLDER WIRE	K718	9371902	0.6 ~ SOLDER WIRE
K507	9371902	0.6 ~ SOLDER WIRE	K719	9371902	0.6 ~ SOLDER WIRE
K508	9371902	0.6 ~ SOLDER WIRE	K720	9371902	0.6 ~ SOLDER WIRE
K509	9371902	0.6 ~ SOLDER WIRE	K721	9371902	0.6 ~ SOLDER WIRE
K510	9371902	0.6 ~ SOLDER WIRE	K722	9371902	0.6 ~ SOLDER WIRE
K511	9371902	0.6 ~ SOLDER WIRE	K723	9371902	0.6 ~ SOLDER WIRE
K512	9371902	0.6 ~ SOLDER WIRE	K724	9371902	0.6 ~ SOLDER WIRE

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
K725	9371902	0.6 ~ SOLDER WIRE	K785	9371902	0.6 ~ SOLDER WIRE
K726	9371902	0.6 ~ SOLDER WIRE	K786	9371902	0.6 ~ SOLDER WIRE
K727	9371902	0.6 ~ SOLDER WIRE	K787	9371902	0.6 ~ SOLDER WIRE
K728	0195250R	CHIP 0 OHM 1/16W	K788	9371902	0.6 ~ SOLDER WIRE
K730	9371902	0.6 ~ SOLDER WIRE	K7AD	0195250R	CHIP 0 OHM 1/16W
K731	9371902	0.6 ~ SOLDER WIRE	K901	9371902	0.6 ~ SOLDER WIRE
K732	9371902	0.6 ~ SOLDER WIRE	K902	9371902	0.6 ~ SOLDER WIRE
K733	9371902	0.6 ~ SOLDER WIRE	K903	9371902	0.6 ~ SOLDER WIRE
K734	9371902	0.6 ~ SOLDER WIRE	K904	9371902	0.6 ~ SOLDER WIRE
K735	9371902	0.6 ~ SOLDER WIRE	K905	9371902	0.6 ~ SOLDER WIRE
K736	9371902	0.6 ~ SOLDER WIRE	K906	9371902	0.6 ~ SOLDER WIRE
K737	9371902	0.6 ~ SOLDER WIRE	K907	9371902	0.6 ~ SOLDER WIRE
K738	9371902	0.6 ~ SOLDER WIRE	K908	9371902	0.6 ~ SOLDER WIRE
K739	9371902	0.6 ~ SOLDER WIRE	K909	9371902	0.6 ~ SOLDER WIRE
K740	9371902	0.6 ~ SOLDER WIRE	K910	9371902	0.6 ~ SOLDER WIRE
K742	9371902	0.6 ~ SOLDER WIRE	K911	9371902	0.6 ~ SOLDER WIRE
K745	9371902	0.6 ~ SOLDER WIRE	K912	9371902	0.6 ~ SOLDER WIRE
K746	9371902	0.6 ~ SOLDER WIRE	K913	9371902	0.6 ~ SOLDER WIRE
K747	9371902	0.6 ~ SOLDER WIRE	K914	9371902	0.6 ~ SOLDER WIRE
K748	9371902	0.6 ~ SOLDER WIRE	K915	9371902	0.6 ~ SOLDER WIRE
K74A	0195250R	CHIP 0 OHM 1/16W	K916	9371902	0.6 ~ SOLDER WIRE
K750	9371902	0.6 ~ SOLDER WIRE	K917	9371902	0.6 ~ SOLDER WIRE
K751	9371902	0.6 ~ SOLDER WIRE	K918	9371902	0.6 ~ SOLDER WIRE
K752	9371902	0.6 ~ SOLDER WIRE	K919	9371902	0.6 ~ SOLDER WIRE
K753	9371902	0.6 ~ SOLDER WIRE	K91A	0195250R	CHIP 0 OHM 1/16W
K754	9371902	0.6 ~ SOLDER WIRE	K91C	9371902	0.6 ~ SOLDER WIRE
K755	9371902	0.6 ~ SOLDER WIRE	K920	9371902	0.6 ~ SOLDER WIRE
K756	9371902	0.6 ~ SOLDER WIRE	K921	9371902	0.6 ~ SOLDER WIRE
K757	9371902	0.6 ~ SOLDER WIRE	K922	9371902	0.6 ~ SOLDER WIRE
K758	9371902	0.6 ~ SOLDER WIRE	K923	9371902	0.6 ~ SOLDER WIRE
K759	9371902	0.6 ~ SOLDER WIRE	K924	9371902	0.6 ~ SOLDER WIRE
K75A	0195250R	CHIP 0 OHM 1/16W	K925	9371902	0.6 ~ SOLDER WIRE
K760	9371902	0.6 ~ SOLDER WIRE	K926	9371902	0.6 ~ SOLDER WIRE
K761	9371902	0.6 ~ SOLDER WIRE	K927	9371902	0.6 ~ SOLDER WIRE
K762	9371902	0.6 ~ SOLDER WIRE	K932	9371902	0.6 ~ SOLDER WIRE
K763	9371902	0.6 ~ SOLDER WIRE	K933	9371902	0.6 ~ SOLDER WIRE
K764	9371902	0.6 ~ SOLDER WIRE	K934	9371902	0.6 ~ SOLDER WIRE
K765	9371902	0.6 ~ SOLDER WIRE	K935	9371902	0.6 ~ SOLDER WIRE
K766	9371902	0.6 ~ SOLDER WIRE	K936	9371902	0.6 ~ SOLDER WIRE
K767	9371902	0.6 ~ SOLDER WIRE	K937	9371902	0.6 ~ SOLDER WIRE
K768	9371902	0.6 ~ SOLDER WIRE	K938	9371902	0.6 ~ SOLDER WIRE
K769	9371902	0.6 ~ SOLDER WIRE	K939	9371902	0.6 ~ SOLDER WIRE
K770	9371902	0.6 ~ SOLDER WIRE	K940	9371902	0.6 ~ SOLDER WIRE
K772	9371902	0.6 ~ SOLDER WIRE	K941	9371902	0.6 ~ SOLDER WIRE
K774	9371902	0.6 ~ SOLDER WIRE	K942	9371902	0.6 ~ SOLDER WIRE
K775	9371902	0.6 ~ SOLDER WIRE	K943	9371902	0.6 ~ SOLDER WIRE
K776	9371902	0.6 ~ SOLDER WIRE	K945	9371902	0.6 ~ SOLDER WIRE
K777	9371902	0.6 ~ SOLDER WIRE	K946	9371902	0.6 ~ SOLDER WIRE
K778	9371902	0.6 ~ SOLDER WIRE	K947	9371902	0.6 ~ SOLDER WIRE
K779	9371902	0.6 ~ SOLDER WIRE	K948	9371902	0.6 ~ SOLDER WIRE
K780	9371902	0.6 ~ SOLDER WIRE	K949	9371902	0.6 ~ SOLDER WIRE
K781	9371902	0.6 ~ SOLDER WIRE	K950	9371902	0.6 ~ SOLDER WIRE
K782	9371902	0.6 ~ SOLDER WIRE	K951	9371902	0.6 ~ SOLDER WIRE
K783	9371902	0.6 ~ SOLDER WIRE	K952	9371902	0.6 ~ SOLDER WIRE
K784	9371902	0.6 ~ SOLDER WIRE	K953	9371902	0.6 ~ SOLDER WIRE

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
K954	9371902	0.6 ~ SOLDER WIRE ⚠	T704	BW00653	HFL1327*D-RC
K955	0195250R	CHIP 0 OHM 1/16W ⚠	T901	221M071	XFMR SW-TRANS
K957	9371902	0.6 ~ SOLDER WIRE			
K958	9371902	0.6 ~ SOLDER WIRE			
K961	9371902	0.6 ~ SOLDER WIRE			
K962	9371902	0.6 ~ SOLDER WIRE	L001	271M231	COIL ROTATION
K965	9371902	0.6 ~ SOLDER WIRE	L002	221M151	HRN 2P CANCEUNG
K970	9371902	0.6 ~ SOLDER WIRE	L21B	2122921M	COIL-AXAIL 0.22UH-M
K971	9371902	0.6 ~ SOLDER WIRE	L21G	2122921M	COIL-AXAIL 0.22UH-M
K972	9371902	0.6 ~ SOLDER WIRE	L21R	2122921M	COIL-AXAIL 0.22UH-M
K97D	9371902	0.6 ~ SOLDER WIRE	L251	2123469M	FERRITE BEAD CORE WITH LEAD 2
			L261	2123469M	FERRITE BEAD CORE WITH LEAD 2
			L262	2123469M	FERRITE BEAD CORE WITH LEAD 2
			L280	2123469M	FERRITE BEAD CORE WITH LEAD 2
E001	271M251	HRN CRT BRAED ASS'Y	L701	221M091	COIL CHOKE 3.9mH/0.8A
E01	271M241	VDOCBL,6FT1VORY W/DDC+CORE	L702	221M004	COIL CHOKE 100UH/1.0A CHK-021
E101	271M018	HRN 5P ASSY 475MM	L703	2125821F	LHL08NB561K
E102	271M019	HRN 6P ASSY 470MM ⚠	L704	221M121	COIL LIN 3.6-38UH HLIN-016
E103	271M020	HRN 9P ASSY 420MM	L705	221M005	COIL CHOKE 1mH/0.5A CHK-022
E201	271M015	CONN.12P2.5MM JSTB12P-XH-L ⚠	L706	221M003	COIL CHOKE 47UH/1.5A CHK-028
E202	2902247	PLG-08P2R5LPWB	L70F	2123469M	FERRITE BEAD CORE WITH LEAD 2
E203	2902244	PLG-05P2R5LPWB	L71F	2123469M	FERRITE BEAD CORE WITH LEAD 2
E204	2902243	PLG-04P2RSLPW ⚠	L901	221M041	COIL CHOKE 25mH
E205	2902249	CP-10BP2R5H EH ⚠	L901A	221M191	LINE FILTER (1.5mH)
E206	2663131	2P PLUG PIN WITH BASE	L904	221M003	COIL CHOKE 47UH/1.5A CHK-028
E207	271M031	SCREEN BASE (1P)	L905	221M003	COIL CHOKE 47UH/1.5A CHK-028
E208	EY00631	PJX-SOCKET HPS0720	L90F	2123469M	FERRITE BEAD CORE WITH LEAD 2
E601	271M007	CONN.2P 3.96MM JST B2P-VH	L91F	2123469	FERRITE BEAD CORE WITH LEAD 2
E701	271M017	WFR 4P 2.36MM(AMP)	L92F	2123469	FERRITE BEAD CORE WITH LEAD 2
E702	271M016	STDFL=10MM.OD=1.55MM	L93F	2123469M	FERRITE BEAD CORE WITH LEAD 2
E70A	2660416	PLUG PIN	L94F	2123469M	FERRITE BEAD CORE WITH LEAD 2
E901	2676371A	AC INLET	L95F	2123469	FERRITE BEAD CORE WITH LEAD 2
E901B	271M011	HRN SAFETY GND 65MM G/Y W/CD	L96F	2123469	FERRITE BEAD CORE WITH LEAD 2
E902	2663131	2P PLUG PIN WITH BASE			
E903	2660416	PLUG PIN			
E904	271M030	HRN 10P ASSY 320MM			
E90F	2721351	FUSE HOLDER	G201	263T031M	KSA-301-20
E91T	271M014	51DF L=20MM,OD=2.3MM	G202	271M111	SPARKGAP 1KV,GD626-1KV
			G20B	FU00011G	MEX-DSP-201M-F10B50
			G20G	FU00011G	MEX-DSP-201M-F10B50
			G20R	FU00011G	MEX-DSP-201M-F10B50
S101	271M004	SW TACT 160GF VERT.6P,P-15MM			
⚠ S901	271M003	SW 8A(80A)250V U/C/V,PCB			
⚠ S902	271M171	RELAY 12A/10A OSA-SS-212DM5			
			B	280M012	PWB-TC87VIDEO
			B001	280M003	PWB-TC87MAIN
			I601B	271M028	INSUL.SIL 15*20*0.26MM
⚠ F901	271M013	FUSE SCER 3.15A/250V U/SEMKO	J501	271M224	UL1007#22 (L=90MM)
F903	271M009M	FUSE F PICO 0.75A/125V U/C AT	N03	2773773	BRH 17.5*28.5*9.5
			V1	DE01701	M41KWB683*74(BE)
			X101	271M010F	XTAL HC-49/U 16MHZ,F5
			Z001	9414017	SILICONE COMPOUND(G-746)
T701	221M211	SMV 3512-06 (FRONTIER)	Z002	948A041	AD HE SIVE-AX-1503C
T702	221M101	XFMR HDR	Z002	9413926	SILICONE RUBBER (KE-40W-RTV)
T703	221M081	XFMR FOCUS	Z101	9414017	SILICONE COMPOUND (G-746)

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SYMBOL NO.	PART NO.	DESCRIPTION
#01	338T071	BRACKET AC CM640
#02	452T163	SCREW-M3x12 MT
#03	452T062	SCREW-M4*8 MT
#04	385T292	PC SUPPORT PS-13GD
#05	433T273	VIDEO SHIELD
#051	344T391	VIDEO HEAT SINK(COVER)
#052	4520881	3*8 SCREW WITH WASHER
#053	381T131	SPACER SUPPORT(FCB-10-V0)
#061	385T311	SOCKET HOLDER
#062	385T321	SOCKET HOLDER STOPPER
#07	385T272	CBL CLIPS TA10-3
#081	4319361	SCREW 3*12 FL/FLT
#082	4269926	WASHER
#09	3763751	SK BAND
#10	3763751	SK BAND
#101	344T413	DEF HEAT SINK (Q714)
#102	344T402	HV HEAT SINK (Q731)
#105	271M033	EARTH LINE WITH TERMINAL
#106	4520889	3*10 SCREW WITH WASHER
#107	8821234	NUT
#111	433T321	TCO SHIELD (FOR FBT)
#112	452T165	SCREW 3*8-MT
#201	433T282	SHIELD (I501)
#202	318T281	INSULATOR (I501)
#211	433T292	SHIELD (FBT)
#212	318T272	INSULATOR (FBT)
#001	4520881	3*8 SCREW WITH WASHER
#002	344T421	VIDEO HEAT SINK
#D914A	344T332	HEAT SINK
#D715B	4520889	M3X10 SCREW WITH WAS
#D917A	344T332	HEAT SINK
#I601A	344T431	HEAT SINK 60*40*19
#I601C	318T252	WASHER 94V-0 6.4*3.3*3.55*2.95
#I601D	4520881	3*8 SCREW WITH WASHER
#I905A	344T032	HEAT SINK 40*15*11
#I905B	4520881	3*8 SCREW WITH WASHER
#Q702A	4520889	M3X10 SCREW WITH WAS
#Q707A	4334011	TRS HEAT SINK
#Q707B	4520889	M3X10 SCREW WITH WAS
#Q708A	4334011	TRS HEAT SINK
#Q708B	4520889	M3X10 SCREW WITH WAS
#Q714B	4520889	M3X10 SCREW WITH WAS
#Q731C	4520889	M3X10 SCREW WITH WAS
#Q901A	344T452	HEAT SINK 75*59.5*10.3
#Q901B	4520889	M3X10 SCREW WITH WAS
#001	301T011	BEZEL ASSY CM600
#001	301T014	BEZEL ASSY CM641
#001	301T013	BEZEL ASSY CM630 PC/J
#010	310T011	BEZEL CM600
#010	310T014	BEZEL CM641
#010	310T013	BEZEL CM630 PC/J
#011	381T061	CONTROL BUTTON

SYMBOL NO.	PART NO.	DESCRIPTION
#011	381T062	CONTROL BUTTON PC/J
#012	381T051	POWER BUTTON
#012	381T052	POWER BUTTON PC/J
#013	KL00291	POWER BUTTON SPRING
#014	381T071	POWER LENS
#015A	469T455	LOGO SHEET LABEL 640U-511
#015B	469T455	LOGO SHEET LABEL 640U-512
#015C	469T456	LOGO SHEET LABEL 640U-RO
#015D	469T457	LOGO SHEET LABEL 640ET-301
#015E	469T345	LOGO SHEET LABEL 640ET-751
#015F	469T345	LOGO SHEET LABEL 640ET-031
#015G	469T379	LOGO SHEET LABEL PC/J
#015H	469T379	LOGO SHEET LABEL PC/J
#016	3752105A	CM600 BEZEL SPONGE
#017	9471428	VACUUM GREASE
#020A	314T043	COVER CM641 ABS
#020A	314T042	COVER CM641 NORYL
#020A	314T044	COVER CM640 PC/J
#030A	489T012	TILT STAND ASSY CM600
#030A	489T013	TILT STAND ASSY CM630 PC/J
#031	317T021	TILT UP CM600
#031	317T022	TILT UP CM630 PC/J
#032	317T012	TILT BASE CM600
#032	317T013	TILT BASE CM630 PC/J
#033	4616826	NWS RUBBER FOOT
#034	318T231	TILT SLIDE CM600
#040	452T082	SCREW-CHTET-5*25 Zn-Cc
#041	4519513	4*16 B TITE TNE
#042	4519513	4*16 B TITE TNE
#043	452T062	SCREW-CBMT-4*8 Zn-Cc
#044	882T032	RUBBER SPACER
#050	385T381	HOLDER (L) CM641
#050	385T382	HOLDER (L) NORYL CM641
#051	385T391	HOLDER (R) CM641
#051	385T392	HOLDER (R) NORYL CM641
#052	381T093	CANOE CLIPS FOR HOLDER
#060	381T081	KNOB JOINT
#072	3763751	SK BAND
#080	QT00265	SERVICE REV. LABEL
#090	4482491	SOCKET HOLDER BAND ASSY
L9	271M181	COIL DWG.17"
Z001	2772984	ADJUST PIECE
Z002	9473101	WHITE PAINT
Z003	9449506	NITTON TAPE NO.188 WIDTH 19
Z004	433T152	SHIELD 95*72MM
Z004B	318T262	PVC SHIELD 40*25*0.125
Z005	433T162	SHIELD TCO
Z005A	271M121	HRN 1P ASSY 300mm BRN
Z006	385T093	MOUNTING PURSE LOCK 14.5
Z007	3705232	ANODE CLAMPER
Z008	271M291	HRN 1P ASSY 250mm BRN
Z010	271M043	UL1015 #22 L=60MM GREEN

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
#11	350T291	CARTON BOX CM640U-511	#01	496T317	RATING LABEL CM640U-511
#12	350T292	CARTON BOX CM640U-512	#02	496T318	RATING LABEL CM640U-512
#13	350T293	CARTON BOX CM640U-RO	#03	496T319	RATING LABEL CM640U-RO
#14	350T294	CARTON BOX CM640ET-301	#04	496T327	RATING LABEL CM640ET-301
#15	350T295	CARTON BOX CM640ET-751	#05	496T328	RATING LABEL CM640ET-751
#16	350T296	CARTON BOX CM640ET-031	#06	496T329	RATING LABEL CM640ET-031
#17	350T297	CARTON BOX CM640J	#07	496T291	RATING LABEL CM640J
#18	350T298	CARTON BOX CM640PC	#08	496T251	RATING LABEL CM640PC
#20	360T151	CUSHION R CM641	#10	944T114	LABEL FOR BAR CODE
#21	360T161	CUSHION L CM641	#10A	W00T691	UPC CODE LABEL SPC.
#25	SU00073	POL.COVER	#11	944T114	LABEL FOR BAR CODE
#26	469T212	USER WARNING LABEL	#11A	W00T691	UPC CODE LABEL SPC.
#30	9544141	DAMPLONG TAPE (60)	#12	944T114	LABEL FOR BAR CODE
#31	9449901	CELLOPHAME TAPE			
#32	9449905	DAMPLONG TAPE(50)			
#40	944T135	SHIPPING TAG W			
#41	944T132	SHIPPING TAG B	#12A	W00T691	UPC CODE LABEL SPC.
#42	944T133	SHIPPING TAG Y	#13	944T114	LABEL FOR BAR CODE
#43	944T134	SHIPPING TAG G	#13A	W00T701	EAN CODE LABEL SPC.
#44	944T132	SHIPPING TAG B	#15	944T114	LABEL FOR BAR CODE
#45	944T131	SHIPPING TAG R	#15A	W00T701	EAN CODE LABEL SPC.
#46	944T132	SHIPPING TAG B	#20	944T125	RIBBON
#47	944T133	SHIPPING TAG Y	#30	469T504	EMC LABEL CM641ET
#50	944T114	LABEL FOR BAR CODE			
#50A	W00T691	UPC CODE LABEL SPC.			
#51	944T114	LABEL FOR BAR CODE			
#51A	W00T691	UPC CODE LABEL SPC.			
#52	944T114	LABEL FOR BAR CODE			
#52A	W00T691	UPC CODE LABEL SPC.			
#53	944T114	LABEL FOR BAR CODE			
#53A	W00T701	EAN CODE LABEL SPC.			
#55	944T114	LABEL FOR BAR CODE			
#55A	W00T701	EAN CODE LABEL SPC.			
#56	944T114	LABEL FOR BAR CODE			
#60	944T125	RIBBON			
#70	9542102	STAPLE (MAX NO.10)			
EA	266T251	MAC ADAPTER			
EP	2743955A	COD-AC CORD SET			
EP	2963915A	COD-EUROPE CORD 10A			
EP	EV00012	COD-AC CORD SET PC/J			
N01	4912943	CUSTOMER RECORD CARD			
N03	0996065	POLY. BAG			
N04	491T441	USER'S MANUAL 640U			
N04	491T451	USER'S MANUAL 640ET			
N04	491T461	USER'S MANUAL 640ET-031			
N04	491T161	USER'S MANUAL 640J			
NO5	469T472	TIMING SHEET CM640			
Z001	3763751	SK BAND			
Z002	9413926	SILICON RUBBER			
Z01	9449901	CELL. TAPE			

HITACHI

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